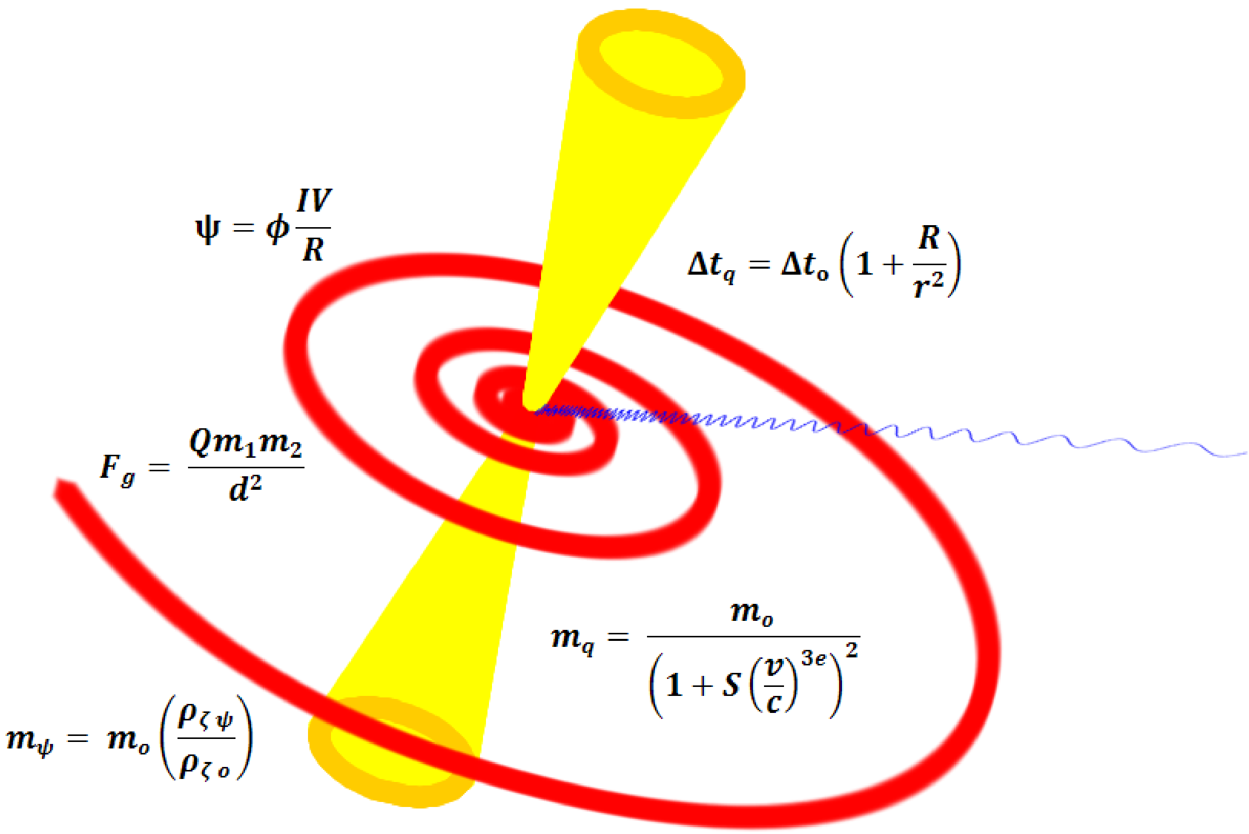
The General Principles of Reality A

Unification of Physics


$\psi = \phi \frac{IV}{R}$
$\Delta t_q = \Delta t_o \left(1 + \frac{R}{r^2}\right)$
$F_g = \frac{Q m_1 m_2}{d^2}$
$m_q = \frac{m_o}{\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)^2}$
$m_\psi = m_o \left(\frac{\rho_{\zeta\,\psi}}{\rho_{\zeta\,o}}\right)$

Robert L. DeMelo

The General Principles of Reality A

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Contact

Email: rdemelo@gpofr.com, rdemelo@gigaframe.com
Website(s): www.gpofr.com, www.generalprinciplesofreality.com

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1.0 Introduction

The theories and subject matter touched in this paper is extensive but far from complete. It is an accumulation of many thought experiments resulting in many theories over the course of almost two decades compiled together into a single document with few derived calculations. As a whole, this paper is only an initial attempt at formulating these theories in a clear and logical manner. For this reason alone, this paper is considered general, a work in progress and why the title is post-fixed with the versioning letter "A".

This collective theory is meant to compliment Newton's, Einstein's, Plank's and Bohr's theories with a fresh new perspective. These theories as a whole are in homage to all the great masters who have been a huge influence in my development since very early childhood, my college and university professors, but especially my high school physics teacher Mr. Mohammed who lit a burning flame of curiosity in physics and who always made time to entertain my questions and concepts with a humble and pleasant disposition.

It is with great hope that this collective theory, its theorized applications and there from its derivatives will aide Humankind in achieving balance with itself, the Universe and Existence.

2.0 Abstract

This collection of general theories surrounding the notion of relative realities extrapolates a series of principles for everything physical of which the only building blocks are the concepts of a space-time fabric and the source of all energy (vibration). The collective drive of these theories pushes the underlining revision on the perception of everything in order to circumvent biasness, old preconceptions, old misconceptions and some of the clutter of current day science and physics. It must be stated that without classical and modern day science and physics it would have not been possible to derive these theories. Thus with credit given to modern and classical sciences, the theories throughout this paper do not take anything in existing physics as factual or absolute, because it would go against the purpose of presenting a fresh new perceptive. All of physics is second guessed and should be continually re-analyzed and revised. I believe this to be the true purpose of a theoretical physicist and philosopher.

It is not with any hope that these theories give rise to unsubstantiated versions of dismissible pseudoscience, but itself be classified, where consensus falls, as a proto-science with many testable and verifiable experiments also with the hope that genuinely open and objective collaboration within and outside the scientific community can arise because by no means are the theories mentioned throughout this paper absolute. It defines the birthing of new Universal laws and refines old laws to better understand the physics of and in everything. These theories as a whole rudimentarily unite Relativistic and Quantum physics under a significant common link and it's something surprisingly elementary and has been staring us in the face for decades.

This paper will cover the following:

- define realities and relative realities
- define a new concept of dimension
- define the true effect of gravity and charge
- redefine Newton's Gravitational formula and introducing the Q transform
- define Space-Time Density and its New Universal Law
- show a new perspective on most known physics
- define charge and neutrality

- detail the relation between Quantum and Celestial realms
- define Space-Time Buoyancy (anti-gravity) & applications
- define the formulation of Space-Time Distortion
- detail the link between Electricity and Distortion
- define Electro-Distortion equations
- redefine Light and Electromagnetic Waves
- detail that the Speed of Light (c) is not constant or a limit
- detail Faster Than Light speed applications including Quantum Radio
- redefine Einstein's Relativity equations
- redefine Einstein's Energy equation
- attempt to explain zero and its relation to dimension and realities
- detail the true effect behind elementary and molecular bonds
- touch on entropy, aging and its link to Earth
- touch on evolution
- explain Existence

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Quick note: macroscopic objects will be referred to as celestial objects throughout this paper and atomic objects will be referred to interchangeably with quantum objects.

3.0 Reality

The beginning of this theory is less scientific and more philosophical in order to demonstrate the gradual process in thought experiments which eventually gave conceptual rise to the theories in this paper and a series of principles regarding all of physics. Essentially, this was the mental path taken by me that eventually led to a unexpected breakthrough, which is discussed in Chapter 7, and several theoretical notions derived from it. It is an essential step in order to define the scope of the collective theory and to extrapolate the principles of reality, which are summarized at the end of this paper in their current entirety with regards to all studies of science.

To begin, we will cover the notions and concepts of reality in order to generally define it.

Definition of Reality

Reality is a container containing the observer. The observer has consciousness to be aware of reality, therefore an observer must exist to perceive reality. Reality is constructed of "things" which are realities on a different scale separated by a perception barrier, but relative to the reality containing it. Relative realities can be perceived tangibly or abstractly and the observer's understanding of the relative realities is the key to removing the perception barrier. For example, you might work for someone whose reality is mysteriously complex and you might question that person's motives and actions because you don't understand what they are doing, but once it's explained to you, the perception barrier is removed giving rise to a newly acquired understanding where you no longer question their actions. Essentially, you have expanded your perception of reality to encompass the reality of the person you work for. Thus, someone's reality can contain someone else's reality. Therefore reality is composed of other realities and created by the observer's perception.

Defining reality eventually gives rise to a related notion and reason why we are able to discuss and envision anything at all; existence. It too is a containing notion much like reality. It is hypothesized that simple mathematics is a simple representation of existence. Without existence, there would be no math to define reality. Therefore simple math is intrinsically meshed with the laws of the existence as is also advanced complex mathematics. The advantage to simple mathematics is that it’s simple and personally I don’t believe existence is complicated just not understood which results in us over engineering a complex perception of existence mathematically. There are perhaps many perception barriers between our current understanding of existence and the actuality of existence.

In order to continue with this train of thought, certain things must be explored and defined such as the definition of abstract, tangible, perception, concept and of course continuing to define reality in regards to all these other notions. Again, this is needed to gain some necessary scope in order to understand the theories presented throughout this paper and especially the more actual theories later on in this paper.

Scope of Definition

All definitions are extrapolated from the human dictionaries, thus they are a concise explanation of the meaning of a word or phrase or symbol as experienced by the Human entity explained in terminology made by Man *relating* to his environment and experiences. There is only one limitation to definition:

The Limitation of Definition is the Human Interpretation

Definition of Abstract

Abstract is something not tangible or something surreal; something that is experienced or felt; something that is not easily apparent.

Definition of Tangible

Tangible is something perceptible by the senses especially the sense of touch; something real: capable of being treated as fact; having physical substance and intrinsic monetary value; palpable: capable of being perceived by the senses or the mind; especially capable of being handled or touched or felt.

Definition of Perception

Perception is the representation of what is perceived; knowledge gained by perceiving; sensing which is to become aware of something via the senses; the process of acquiring, interpreting, selecting, and organizing sensory information.

Definition of Concept

Concept is abstract or symbolic tag that attempts to capture the essence of reality, thus it is interchangeable with the definition of reality.

Principles of Concept

All concepts have certain core defining characteristics and these are but not limited to:

- Concept is developed & perceived by an observer
- Concept is abstract not tangible, thus not physical
- Concept is quantifiable
- Concept can have no limit
- Concepts are constructs of other concepts
- Concepts can be made tangible

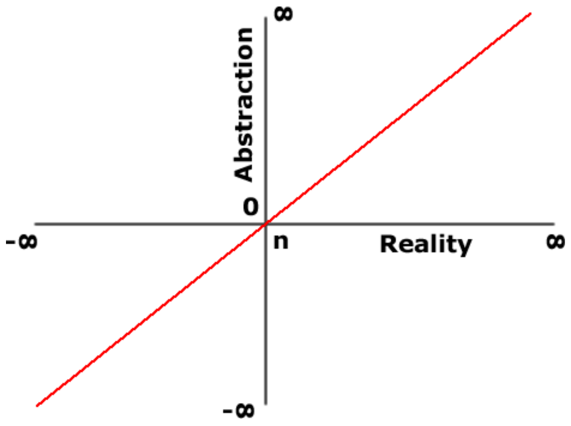
Concept Example

What the principles of concept mean is that all things imaginable are concepts of what we perceive and relate too. They are an extrapolation of our knowledge and understanding which we then use to define all things in order, if there is desire, to make the concept tangible. If we read further into the notion of concept we arrive at an infinite self-defining fact:

The concept of Concept is itself a concept.

Abstraction vs. Reality Graphical Relation

The following graph helps relate abstraction vs. reality, thus tangible vs. reality. The position of **n** is the reality magnitude of the observer. As can easily be seen, it doesn't matter where the observer sits on this graph, his relation to abstraction and tangibility will always be the same, which means the further away another reality (concept) is the more abstract it is to the observer and only the realities near to the observer can be tangibly understood or physically tangible.



This graph has significant implications with regards to the relation between quantum and relativistic physics, which will be stated at this point, is the underlining supposition and postulation of this entire paper and will be discussed later on in detail and validated through other notions including space-time density and distortion. Essentially realities of a higher magnitude in either direction are more abstract and may appear to the observer as unrelated and events in those realities possibly be perceived as completely random while realities of a lower magnitude, meaning near the observer, are more tangible and more predictable to the observer located at **n**. Basically, just above and below the observers position in this graph, those realities magnitudes are tangible, but the further out you go the more abstract they become relative to the observer's position. For example, the concept of and the understanding of matter is fairly well defined to everyone on this planet. Matter is a substance and is very tangible, but when trying to perceive what it actually is, even with the aid of modern day machinery, the understanding of matter becomes more abstract.

In order to better explain perception of reality, a couple of examples are given.

Man in a Box

A man suffering from memory loss awakes inside a box that is transported to a place unknown to him. The box is suspended from a crane where another man controls the crane outside the box. The man outside is free to do anything he wants. The man inside can do whatever he wants in the limit of the box. To the man inside this box, the only reality he knows is in the box. For the man outside, his reality is as far as you can see. The man inside doesn't know what is outside. He feels vibration and movement as the crane operator moves the box around, but to him, the movements are mysterious and a huge unknown. The operator outside knows exactly what he is doing and can physically (tangibly) interact with the box as a singular object, but possibly doesn't know what's inside. For the man inside, he can't interact with what's outside the box, except through abstract means such as making noise or attempting to swing the box if it is suspended or hitting it to make sounds externally.

Are the two realities very different? Obviously they're not very different, but they are different. The *difference is in the barrier of perception*. In both realities, it is important to note that the physics is the same with the box having much less room to perceive a broader spectrum of physics that are easily perceived in much larger spaces.

Man in a Box Version 2 – The Big Picture

There is a man in a box and the box is located in a large storage room containing a crane and the crane operator. The storage room is located in a building with multiple storage rooms all visible by the building supervisor from a cat walk running down the center of the building. The building is part of a larger complex managed by the site manager. The complex is located on an island surrounded by a lake which is patrolled by the coast guard. The lake is surrounded by a city containing citizens and is managed by the mayor. The city is surrounded by mountains patrolled by forest rangers. The mountains are located in a state managed by the state governor. The state is located in a country patrolled by the air force and managed by the president. The country is located on a planet which is orbited by astronauts. The planet is located in a planetary system which is visible by a long range satellite. The planetary system is located in a galaxy which visible by telescope from another alien world in another galaxy which resides in the same galaxy cluster. The galaxy cluster is visible by telescope from another galaxy cluster. All galaxy clusters are visible by an advanced spaceship located in the very deep reaches, possibly the edge of the Universe. Outside the conceivable reaches of the Universe, is there anyone looking in at it? According to this all encompassing supposition and theory of realities, the answer is yes. Though in this example, the farther away we moved our observer, the smaller the perceived previous containing reality was, due to distance, even though what resided in those realities were actually very large. There were several assumptions in the example that have significant impact on the perception of reality. One assumption was that the observer was human or alien, another was that the observer's physical size never changed and finally the passage of time relative to the observer and perceived realities was constant. If we remove those assumptions, then we have a much broader notion of reality, the observer and the barrier of perception.

Barrier of Perception

Imagine the possibility that aliens do exist, and that they come of various compositions just like animals here on Earth come in different compositions. Now envision the Man in a Box Version 2 example where at every containing stage, the observer increases in size relative to the previous reality container (the first being the Box). These would be strange realities, but in the vastness of space the composition of alien life is unknown. So there is a possibility that if alien life exists, it could be very large in size which would give them a different perspective on the environment surrounding them as compared to our own perspective. To an alien who hypothetically is one kilometer tall, we would appear very insignificant if we were noticed at all. What if the alien was as large as the galaxy or larger? Preposterously impossible or is it? What if the entire star systems and galaxies were mere atoms and molecules of an unimaginably large alien observer? The barrier of perception is only limited by our willingness to imagine and accept different notions and concepts. But this also goes to reason that size isn’t the only thing that would affect perception of the environment around the observer hence the observer’s perception of reality. A multitude of things can change the observer’s perspective of reality along each step of example 2, such as physical attributes, environments, perceived relative passage of time, level of technology, level of enlightenment, possible belief systems and a multitude of other things that we ourselves have yet to become aware of. Reality is what the observer perceives, which is affected by many other attributes that have constructed the observer’s being.

But the question still lingers,” If looking at the Universe from outside it, how does it look?” The answer is something that an observer of a lower reality, like us, can relate too, thus relative if our size were to increase enormously and our perception of the passage of time were to decrease. It will look like something that is tangible and easily understandable. Why answer with such definite certainty? Because part of this theory is the notion that realities are relative in characteristics and properties, so by looking at a rock and looking at the Universe from outside its unknown barrier the two might look the exactly the same or very similar if the barrier of perception were to change between the observed environment and the observer. This notion of relative realities is very significant throughout the rest of this paper.

The Commonality

In all the definitions, suppositions, principles and rules mentioned until now there has been always one common link. The link is the "observer". Everything is defined by something called the "observer". What is the "observer"? From what was previously written, it can be extrapolated that the "observer" has some common characteristics:

- The ability to perceive.
- Living consciousness enabling perception.

Thus the *Commonality Principle* is postulated as:

Consciousness Exists in All Realities;
Realities are Perceived by Consciousness

At the fundamental core of this theory, realities are perceived by the observer and cannot exist without the observer. Meaning, what the observer perceives to be a reality is a legitimate reality. The Man in a Box example assists in explaining the core of this concept. This can better be explained by examples in pop-culture such as the saying," I make my own reality," or," you're living in your own reality." Many people's perception of things are limited, thus their reality is different than the reality of someone who perceives more, is more open-minded or is more knowledgeable. Does this mean that the actual environment of closed-minded people is limited, or just that their perception is limited. The conclusion for both cases is that their reality is limited. As someone moves from closed-minded perception to open-minded perception, their reality changes and this change, in the fundamental essence of this theory, is a very real change in relation to real realities. Does this mean as we become aware of the mechanics of the Universe that we will transcend into a higher reality beyond what we perceive as a physical connection or barrier to this reality? In accordance with this theory, the answer is *yes*. How? For anyone to transcend reality, they must first be aware of all magnitudes of realities leading to their destination reality, they must be open-minded and definitely understand it. In order to transcend a single magnitude of reality there is only one requirement, the willingness to do so. If a person has the will, they will find the means, and once they have the means, they will transcend even if it is a very small step. This is akin to the natural progression of our civilization in regards to technology advances, increase in individual knowledge and the acceptance of being open-minded to new concepts.

Thus from this fundamental understanding, we can postulate the core principle of this theory, the *Creation Principle:*

Consciousness Creates and Transcends Reality

This leads to one obvious question which is where does consciousness come from? Now I'm referring to it as something tangible with the ability to exist outside the constructs of the physical body; an entity onto itself. Does it possibly come from God? Does the summation of the consciousness of all observers in all realities amount to one super consciousness which we currently refer to collective consciousness? If so, is all individual consciousness connected? Perhaps all this is a real possibility but what I logically perceive personally and what might actually be factual, though I stress is completely speculative, is that consciousness is the true fabric of everything (the Universe and Existence) and that on some abstract level consciousness is physical existence thus it is all connected.

If everyone is connected consciously, mentally, then why are some people less intelligent than others? There are a multitude of reasons why this is factual following this currently speculative train of thought. One reason, the one I logically derived with a fairly high level of reasoning is that the physical body of the observer affects intelligence as a machine with an ability to receive, transmit and interpret conscious thought to and from where conscious thought comes from, perhaps space itself which connects all of us. If this body "radio" is damaged or programmed badly (the mystery of genetics) then what we perceive as "intelligence" is less refined and needs more work for it to function better plus the person needs the will to do so. Now "intelligence" is measured by the ability to recall and interpret data and at the speed at which it does it. Some people are blessed with a fluidic brain where the speed of their thinking process is much quicker and accurate than others. Of course, the mystery of genetic programming plays a part in this but I personally don't believe it's the only factor though perhaps the greatest factor. If this speculative theory is true, it can be stated that no two people are the same, but all of us are one.

Space-Time-Consciousness

To explain how consciousness plays into our perception of reality I'll present another example which I find most powerful.

A and B are points separated by a distance of 10 feet. In order to move from A to B, you must do two things. First you must traverse distance. The second is it takes time to move from A to B. Now that's where current science stops and decides that's all that's required to understand the physics of moving from A to B. It's not. What we have to understand is that in order to move from A to B we also have to see and understand that is what is happening. It's the third part of the puzzle and has always been. Without conscious awareness of the event, does the even still happen? If no one is there to perceive the event, can any of us conclude the event actually happened? We can determine if an event happened after by forensically looking at the clues, but again it requires conscious involvement. Also, to move from A to B there must be a conscious will to do so, thus the event is consciously induced. Therefore for this event to exist at all, it must be consciously induced and then consciously observed or analyzed. The point being, consciousness is a requirement to our existence and reality. Thus the three parts to reality and existence is space (distance), time and consciousness.

How does this understanding of space-time-consciousness relate to how a boss perceives his reality compared to his employee. Space-time-consciousness relates to all human relationships and the reality each one of us perceive because we are all separated from each other by distance and distance fundamentally involves time. For anyone of us to come into contact with anyone else, it requires we cross distance which takes time to do so. In relation the boss-employee relationship and different perceptions of reality, the boss will tend to get information before the employee in regards to their relationship or in regards to the direction of the company which involves a difference in time. Also the boss is separated from the employee by distance (space). These root aspects of our physical existence contributes to our perception of reality and the barriers of perception between realities. When we don't know something because we haven't had contact with someone else we tend to get curious or suspicious and some of us build up elaborate perceptions based on this curiosity or suspicion. Rumors are a natural by-product of this relationship between space, time and consciousness.

Properties of Consciousness

Now that we understand how consciousness plays a fundamental role in our perception of reality and existence, let us look at the common properties that space and time share and apply those same properties to consciousness. The most apparent common property between space and time are that both can be infinite. Space can be a foot or from here to the ends of the Universe. Time can be a second or all of time from the ancient past to the endless future. Thus consciousness should also have an infinite property. So consciousness can be very small or infinite, meaning it can be very dumb to infinitely intelligent. But what does intelligence mean? It means understanding, awareness, knowledge and enlightenment.

Consciousness Properties:

1. Infinite in Range
    a. Understanding
    b. Awareness
    c. Knowledge
    d. Enlightenment

God

Another property of space and time are that they exist and comprise our notion of a single existence each as a single notion or concept, meaning all of distance and all of time make up our current "understanding" of the Universe. Thus all consciousness also makes up our "understanding" of existence. Since there is only one existence in which everything exists in including infinite space and time, then this existence contains infinite consciousness too. So Existence collectively is infinitely conscious and since it gives birth and nurtures everything inside it, it is directly the creator of everything. Thus,

Existence is God

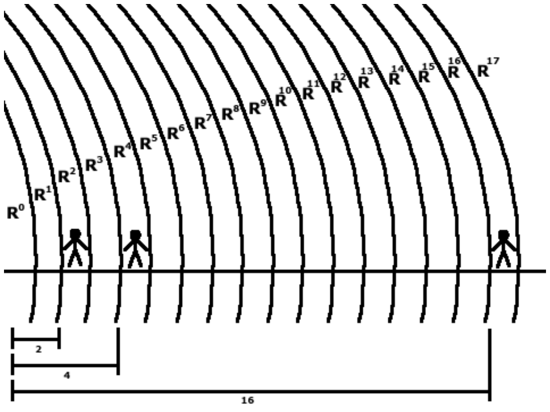
Relativity of Reality

Realities are separated by magnitudes of dimension; a barrier of perception. As it has been stipulated, higher dimensional realities observe lower dimensional realities as tangible. The question then arises, “Do realities of different dimensional magnitude appear the same if the observing consciousness could observe at two different dimensional magnitudes of reality?” Simply put, if one reality looks like a rock on the ground, is there another reality that would also look like a rock? Thus the following is postulated:

At Exponentially Proportional Differences in Dimensional Magnitude, Realities are Relatively Equal

Relativity on the Reality Line

Relativity extends to include not only space-time in relation to velocities as is famously known and initially postulated plus formulated by Einstein, but it also includes realities. As humans, we relate everything to everything else we know and can define somewhat but never absolutely and what we do know is still always related to something else. In the image below, note realties as they appear from a higher reality at two different points on the reality line.



To R16, R4 looks like R2 from R4

Rules of Reality

Reality is itself a concept. It’s the tag line we use to define our enclosure, our limitation and our scope. But in the midst of this concept of reality is a very clear set of rules which this theory defines as essential to the understanding of everything.

Rules for Reality are:

I. Reality is defined by how it is perceived from within that reality.
II. Reality is perceived as containing the observer.
III. Reality is created and perceived by the observer.
IV. All realities exist in other realities.
V. Realities are relative to each other.
VI. Realities of a lower dimension are tangible to realities of a higher dimension.
VII. Higher realities are abstract to lower realities.
VIII. Lower realities interact abstractly with higher realities.
IX. Interaction from a higher reality on a lower reality is perceived abstractly by the lower reality.
X. Higher realities interact tangibly with lower realities.
XI. Interaction from a lower reality on a higher reality is perceived tangibly by the reality of a higher dimension.
XII. As the perception of reality broadens, the bigger reality becomes.

4.0 Dimension

Dimension is the building block of everything and as it was somewhat defined previously, is a barrier of perception. It is the fundamental unit and "substance" comprising of all other construct substances and including itself. This concept of dimension will be used only as a conceptual tool to understanding reality mathematically using only simple mathematics. The concept of dimension here does not follow the traditional concept of dimension, but instead the concept of reality better fits into the traditional notion of dimension though not fully. Here dimension is the "something" that builds existence, hence a building block from which large constructs can be made from such as a house or a rock.

Definition of Dimension

Dimension is the absolute fundamental building block of everything and most importantly is the building block of itself. Thus, for one "thing" to be everything then mathematically it must equate to all possible real values.

$$\boldsymbol{d = d^n}$$

d = *dimension*
n = *dimensional magnitude*

Why real values, because all things in existence are real. Imaginary values are also real in regards to actual concepts or notions relating to real things but they are not tangible, though concepts and notions can be made tangible then in which case they become real relative to our reality. Essentially concepts or notions are themselves real. For example, a blueprint itself is real, the concept printed on it is not tangible, but once the concept is manufactured into a prototype it becomes tangible and real. All things exist in this manner because they are either real or imagined (imaging is real) and the only logical reasoning for something to be unreal or imaginary but yet exist in itself is for there to be a consciousness in order to imagine it. This consciousness can eventually make the concept real if the consciousness has the will to do so.

This dimensional equation is unique because there is no other building block, conceptually, for all of what we perceive as existence.

$$\therefore \boldsymbol{d^1 = d^n = d^{h-h} = d^0 = 1}$$

$$\boldsymbol{d^1 = d^{-n}}, \qquad \lim_{n\to\infty} \frac{1}{d^n} \cong 0$$

$$\boldsymbol{d^1 = d^n}, \qquad \lim_{n\to\infty} d^n \cong \infty$$

Since dimension is everything, then how is it possible that different "things" are different; exude different characteristics. Mathematically, all real numerical values are different from each other, thus dimensions of different magnitudes also exude difference in relation to each other. For example, look at a grain of sand then look at a large rock made of the same substance. They're both the same but yet different. They're the same substance, but one is heavier than the other and it's also physically larger. You can argue that it isn't a substantially big enough difference to be even characterized a difference, but the actual and factual truth is that there is a difference for the mere fact that one is referred to as a grain of sand and the other is called a rock. We historically, consciously and subconsciously, have related difference in all things therefore difference is real even if we don't understand what's beneath the surface. Two things might be made of the same substance which can be evident at first glance without objective scientific study even though these two things physically look different. Why, because the observer has the knowledge to distinguish between the two things without extensive study and some of this knowledge is instinctual thus subconscious. Knowledge is gained overtime learning from experiences including the experience of being taught. Instinct too follows the same course but is more abstract to our understanding, even though some classify it as a genetic product, but even if this is true, genetically things are still learnt. So in that learning, we subconsciously, consciously and even genetically continually compare newly learnt concepts with those we have tangible and abstract knowledge of and have overtime accumulated in our minds or being.

Definition of Reality

Reality is very simply the summation of all things in it.

$$\boldsymbol{R^u = \sum_{n=-u}^{u} K_n d^n}$$

d = dimension
n = dimensional magnitude
K = quantity d^n and of d^0
u = reality level ≈ Universe

Where $\boldsymbol{K}$ can be further defined as:

$$\boldsymbol{K_n = q_n k_n}$$

K = quantity d^n and of d^0
q = quantity dimensional element
k = level of d^0 in dimensional element

This equation has unique characteristics due to the definition of dimension.

$$\boldsymbol{R^u = d^0 \sum_{n=-u}^{u} K_n d^n}$$

The equation of everything would be:

$$\boldsymbol{R^\infty = d^0 \sum_{n=-\infty}^{\infty} K_n d^n}$$

This is assuming that the summation of everything is not finite which I believe is not, though the concept of everything, or Existence, can be classified as a "single" concept thus quantifiable.

$$\boldsymbol{\alpha = R^0}$$

$$\boldsymbol{\omega = R^\infty}$$

Dimensional Element

The following are some notational conventions I used to formulate dimension and reality. I figured it would be worth noting in this paper though ultimately it isn't touched on beyond this point.

$$D_k^n = kd^0 d^n$$

D = dimensional element
d = dimension
d^0 = common to all dimensional elements
n = dimensional magnitude
k = level of d^0
u = reality level ≈ Universe

Where it can be assumed at this point that kd^0 = ***Energy*** (or a form of energy) and its magnitude since energy is the most common "thing" in existence.

Dimensional Cluster

$$C_{k^n j^m} = D_k^n + D_j^m$$

C = dimensional cluster
D = dimensional element

Ex.1

$$C_{k^n j^m} = kd^0 d^n + jd^0 d^m$$

$$C_{k^n j^m} = d^0 (kd^n + jd^m)$$

Ex.2

$$C_x = C_{k^n j^m}$$

$$C_y = C_{k^n j^m}$$

$$C_z = C_x + C_y$$

Energy

It is *assumed*, as mentioned before, that energy is the most common "thing" in existence, but this "thing" might also be consciousness (thought) as is explained later on. It is the enabler of reality. Without energy, nothing exists including dimension (d). If this "thing" was consciousness, then it also must be stated again, in brief, that consciousness creates and transcends reality, even though that statement referred primarily to mental perception, it now leads to a significant question. If all consciousness was killed (nullified) in the Universe (the whole of Existence), would the Universe still exist and who would be left to answer this question? Thus it is possible this "thing" (d^0) is Universal consciousness, the enabler of reality, but for the time being, it will be referred to as energy as it relates to wave vibrations and perpetual rotational system movement which still might be connected to consciousness.

$$\boldsymbol{E = kd^0}$$

d = dimension
k = level of energy
E = energy

Where k can be negative and positive, meaning there is negative and positive energy (or consciousness thus good and evil), which might not refer to an imaginary negative energy but also vector direction.

Energy cannot be destroyed, just converted. Dimension d^n cannot exist if $kd^0 = 0$.

$$\boldsymbol{D_k^n = 0d^0d^n = 0}$$

Thus dimension cannot exist without positive or negative energy; dimension itself is energy.

And if referring to consciousness:

Thus dimension cannot exist without positive or negative consciousness; dimension itself is consciousness.

Matter/Space/Time

Space-Time the next most abundant "thing" in the existence next to energy/consciousness d^0, thus it is postulated that Space-Time is d^1.

Space-Time is a singular concept or "thing". It is the embodiment of the "space" between objects and the "time" taken to move between them. Different levels of d^0 changes its appearance relative to other levels of kd^0d^1.

Dimensional Elements have changes of appearance and characteristics and behavior in relation to solely d^0 and d^1. Dimensional Elements are made up of bonded dimension of various types derived solely from d^0 and d properties. These dimensional constructs, if constructed differently, embody different characteristics though made of the same "substance".

Dimensional Clusters even further change the appearance and characteristics by encapsulating smaller clusters inside them. The only limit to the size of dimensional clusters is the amount of d^0 and d^1 that exists.

5.0 Space-Time

To make it perceivable, Space-Time will be envisioned in the concept of Space-Time tensors. This does not mean that Space-Time tensors actually exist. What's important is that this concept, a simplified imaginary embodiment of Space-Time, is necessary to envision the physics behind Space-Time and not that the concept is itself factual.

$$\zeta = \boldsymbol{Space\ Time}$$

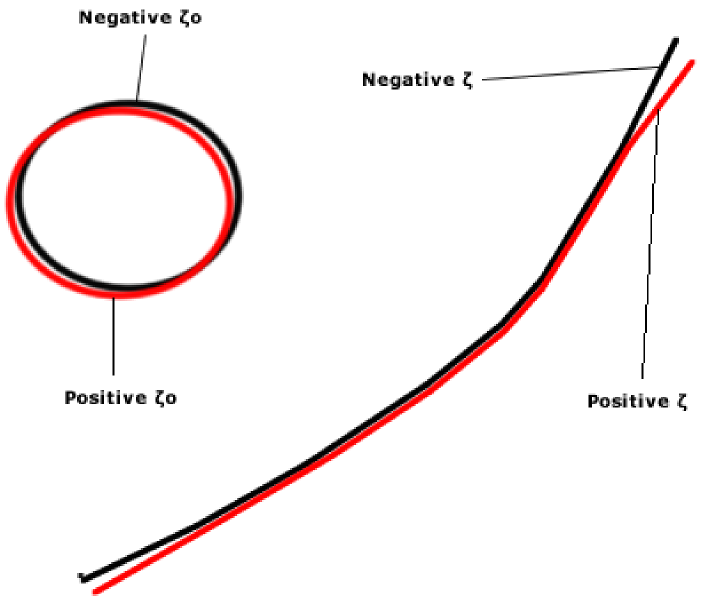
$$\zeta = \boldsymbol{d^1}$$

It is similar to the concept of string, such as a shoe lace and not necessarily strings found in super string theories. The interpretation and usage of the concept of string is different in this theory as it relates to other string theories which personally I believe many have diverged from the actuality of physics.

Space-Time Tensor Initial Properties

The following are the assumed conceptual characteristics of Space-Time tensor strings. These properties were accumulated in mental thought by looking at the properties and behavior of water though they might not apparently be related.

I. Looks like a string
II. Is elastic thus can stretch
III. A stretched string is more difficult to vibrate; higher frequency, lower amplitude and vice versa for non-stretched strings
IV. Can break and reattach end points to itself or other strings
V. Takes time to move, thus movement is not instantaneous
VI. The more it is stretched, the faster its vibration propagates
VII. Carry energy in the form of vibration (waves) thus has wavelength, amplitude and frequency
VIII. Are made up of "negative" and "positive" halves which attract each other to make the whole string "neutral"
IX. The force to reattach end-points > force to recombine opposite halves



Again, this notion of tensor strings is only a conceptual tool to assist in refining the principles behind existence. It is in my belief that in actually, and later in the paper it will be covered more in depth, that space-time is a form of the classical Aether "substance" in which the density, as perceived by the observer it contains, appears to be the same but this density can appear less dense or denser if observed by a second observer outside the region of space-time density the first observer is in. Thus in actuality it is postulated:

$$\boxed{\zeta = \boldsymbol{Space\,Time\;\;Ether\,Substance}}$$

Nominal $\boldsymbol{\zeta}$

The concept of nominal space is where the density of $\boldsymbol{\zeta}$ is at its natural lowest in the Universe. Nominal space is assumed to be the dark deep space between large celestial systems and what is at or beyond the edge of the perceivable Universe, what can be perceived as a bulk of galaxy clusters which can be considered our Universe. Again, this is just a concept, thus is possibly and very probable, if relating it to the infinite size of the Universe, that there is no constant nominal space, just different densities of space-time substance relative to each other.

ζ_{NS} = Nominal Space Time Tensors

This is the notation for $\boldsymbol{\zeta}$ that is at a natural minimum density stretching throughout the Universe.

Definition of Matter

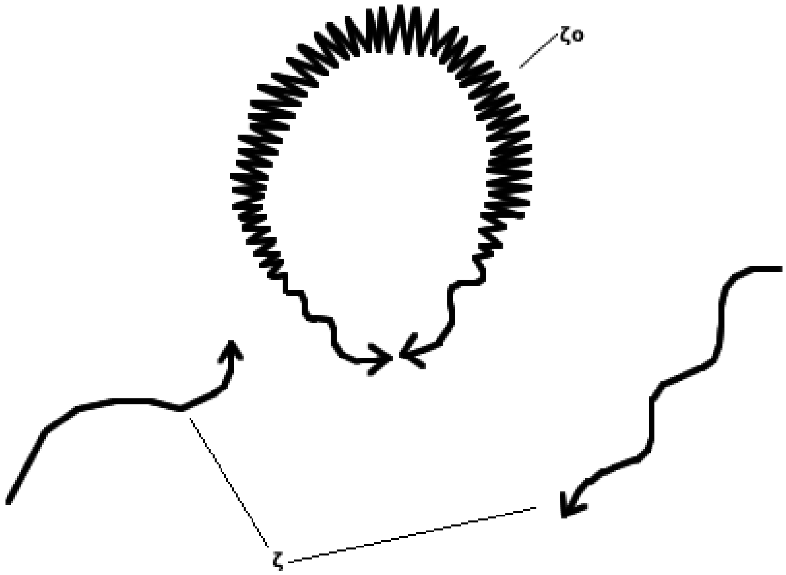
Matter is just high density, high energy $\boldsymbol{\zeta}$ that vibrates at very high frequencies f, very short wavelengths λ and *very* small amplitudes which is produced by motion generated $\boldsymbol{\zeta}$ wake lines (magnetic fields) due to natural rotational systems of linear velocities near or at $\mathbf{c}$ as it is perceived by us from our reality perspective. These wake lines are perceived as surface or barriers by lower $\boldsymbol{\zeta}$ realities such as a celestial observer looking at a cluster of quantum systems maintained at a distance from each other by total destructive interference of vibration which contributes to matter density. The vibration of $\boldsymbol{\zeta}$ condenses its length from both ends making the density of $\boldsymbol{\zeta}$ for a given volume of "space" possibly less or more dense depending the frequency and amplitude of the vibration which can cause forces to move objects of matter together or apart. Vibrating $\boldsymbol{\zeta}$ can change its density as to basically appear as a photonic-particle (perceived somewhat as a particle but not). This alone isn't enough to define matter as we perceive it though technically it is. $\boldsymbol{\zeta}$ *is matter*.

$$\boldsymbol{m = R^{M} = \sum_{n=-M}^{M} k_n d^0 q_n d^n}$$

m = mass/matter
M = reality level
d = dimension
n = dimensional magnitude
q = quantity of d^n
k = level of d^0

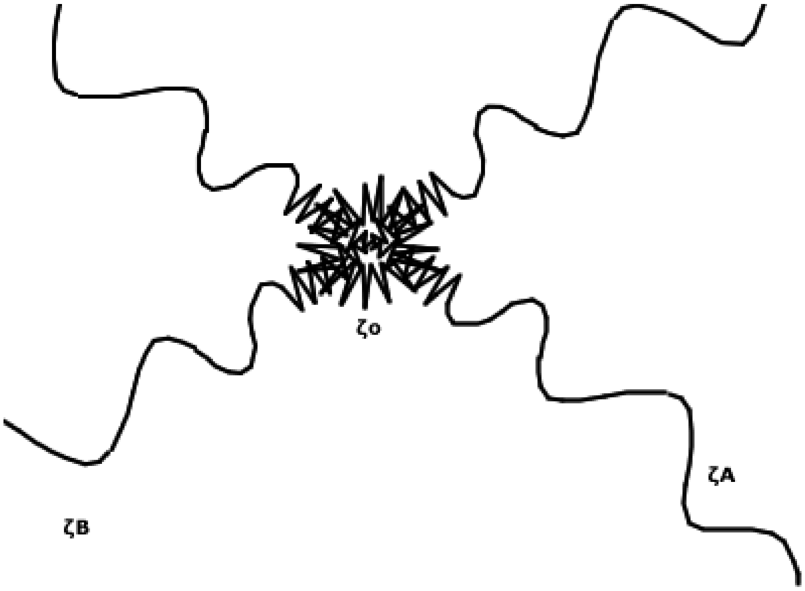
Considering the concept of $\boldsymbol{\zeta}$ tensor solely, the properties of $\boldsymbol{\zeta}$ lead it to develop constructs. For example, $\boldsymbol{\zeta}$ vibrating at very high frequencies and amplitudes, causes excessive stretching and tension, which can literally break (snap) it at one point and split it into two pieces or at two points forming into smaller detached open-ended $\boldsymbol{\zeta}$ of various high frequencies and varying amplitudes. Depending on how they broke away, the open-ended $\boldsymbol{\zeta}$

would quickly reattach its endpoints to the parent's ζ nearest endpoint from which it snapped or reattach to its own end points forming a closed loop ζ_o; whichever is closer.



Infinite instances of this process happened in the beginning of the Universe, if there was a beginning, possibly creating infinite closed loop, high frequency ζ loops.

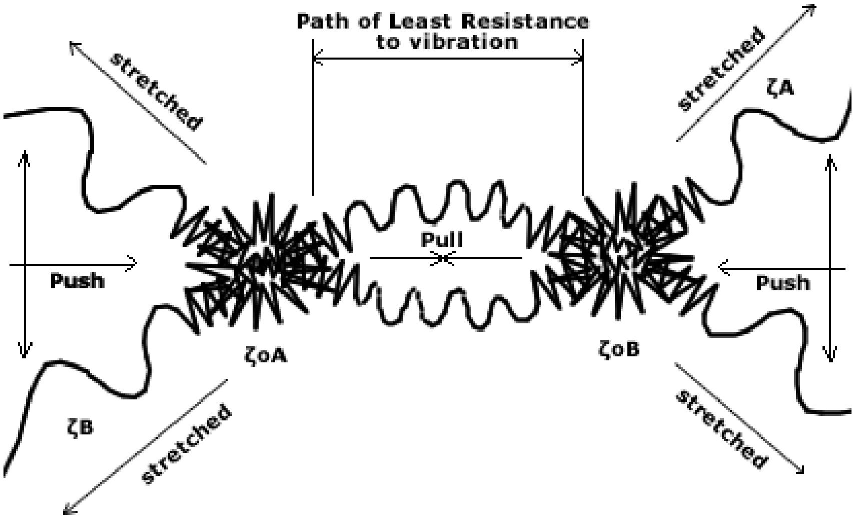
Low energy ζ would interact with them and pass (cut) through them. This interaction would also begin vibrating low energy ζ in the higher energy closed-loop ζ. The interaction alone cause vibrations (energy) passing through end-to-end ζ to localize and focus at these interaction locations. This process is basically vibration sharing or equilibrium of energy (remember the *Law of Energy Conservation)*. Energy cannot be destroyed, just converted which alone has many implications and are fundamental to this theory.



Vibration sharing would shorten the overall length of lower energy ***ζ*** due to decrease in wavelength and an increase in amplitude at the location of interaction and begin to stretch the lower energy ***ζ*** from both sides (end-points) and condense it into the location of interaction.

Gravity

This interaction of a low energy ***ζ*** with two high energy closed-loop $\boldsymbol{\zeta_o}$ at two different points of interaction would stretch low energy ***ζ*** and condense it from two directions effectively creating a pull between the two interactions of vibration sharing. Also, if ***ζ*** has more interactions further along at multiple points coupled with its need to expand (stretch) outward due to its links to other ***ζ*** as they stretch throughout their reality and attempt to reach a nominal length due to the amount of energy in its reality, it will also create a push.



This effect is what we perceive as gravity.

Dimensional clusters are the combination of various closed-loop ζ_o "attracting" themselves together by the "effect" of gravity and would continually compound until a very large dimensional cluster is formed that would become what we perceive as matter.

Charge

This theory, at this point, very strongly challenges the concept of charge attraction and repulsion in substitution for the effects associated with vibration interaction via the space-time (ζ) medium, as it applies to wave theory, between multiple bodies at significantly different physical scales and characteristics, but for the sake of current perception, charge (negative and positive) will be examined as factual.

According to $d = d^n$, where n is dimensional magnitude, it is mathematically implied that n can be split into numeric summations. Since $d^n = d^0$ also, it can be postulated that $n = h-h$. Thus ζ has two equivalent counterparts, but are opposite in magnitude. Both – and + have the "need" to join and become what we consider "neutral".

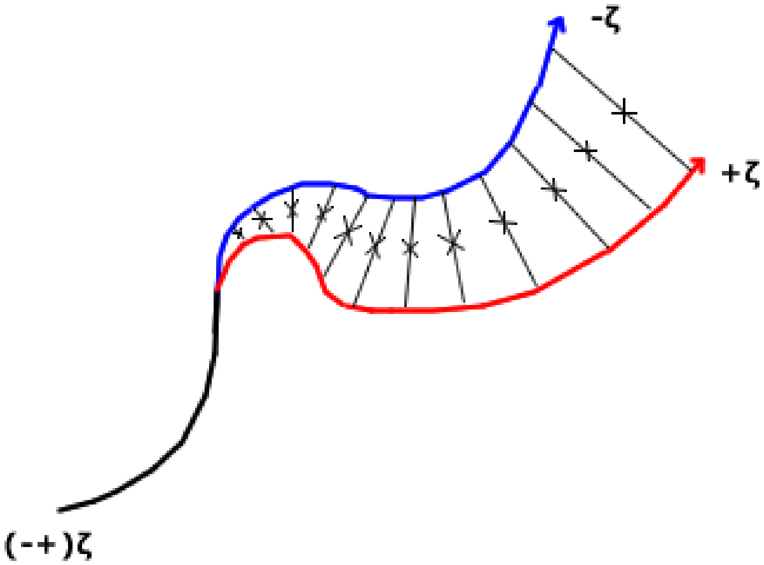
$$d^{-h} x\, d^{+h} = d^0 = 1$$

Notice that kd^0 is common to both d^{-h} and d^h. Where $kd^0 = 1$ and d is what it is, something "real", then the following statement holds true also:

$$kd^0 d^{-h} < kd^0 d^h$$

What this means is that a dimension of magnitude less than 0 is less than a dimension of magnitude higher than 0. This can have characteristic implications regarding interaction between the two halves of $\boldsymbol{\zeta}$. Since realities are relative and in our Universal reality it is widely accepted that in the natural quantum environment a natural "negative" charge such as an *electron* is much smaller in mass than its "positive" counterpart the *proton*. *Thus it is postulated that +$\boldsymbol{\zeta}$ is a "thicker" string than its "thinner" negative counterpart.*

This characteristic has implications in the creation of dimensional clusters. It states that +$\boldsymbol{\zeta}$ will have more of itself, or possibly more of what we perceive as mass, than its negative counterpart though their "charges" are the same. Please note again, that the concept of "charge" which implies the concepts of "negative" and "positive" are a Human defined interpretations for a force attracting or repulsing two things of some substance together or apart in relation to the abstract subcontract of matter (atomic and quantum realms).



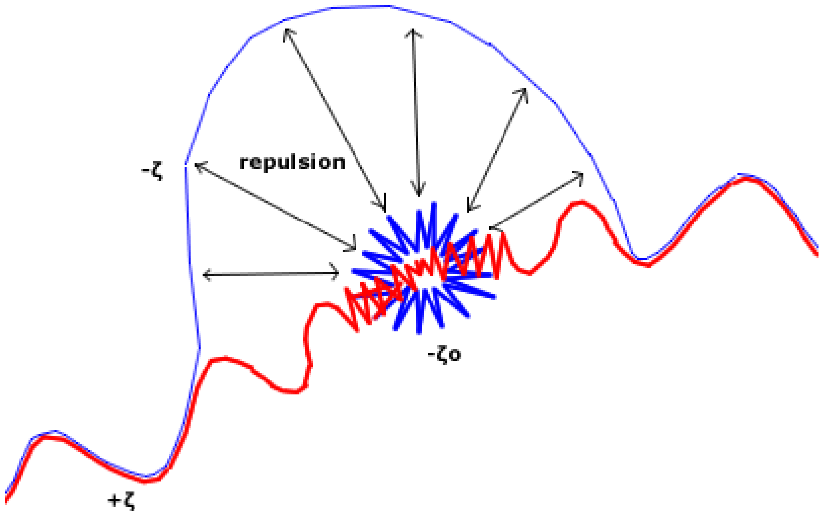
Notation for negative and positive $\boldsymbol{\zeta}$ will be:

$$\boxed{\bar{\zeta} = -\zeta}$$

$$\boxed{\bar{\bar{\zeta}} = +\zeta}$$

In the beginning (the Big Bang possibly though I personally doubt it), they split due to an "imbalance" in d^0 (energy). This "imbalance" in d^0 formed d^n, which also formed d^{-h} and d^{+h}. This was possibly due to the fact that "thicker" strings vibrate at different frequencies than "thinner" string with the same amount of energy. The newly formed d^{-h} and d^{+h} coupled with high levels of d^0 (vibration), broke into closed-loop $+\boldsymbol{\zeta_o}$ and $-\boldsymbol{\zeta_o}$ which attract each other. Some were bound by intertwined loops along with charge attraction and others where bound simply on charge attraction.

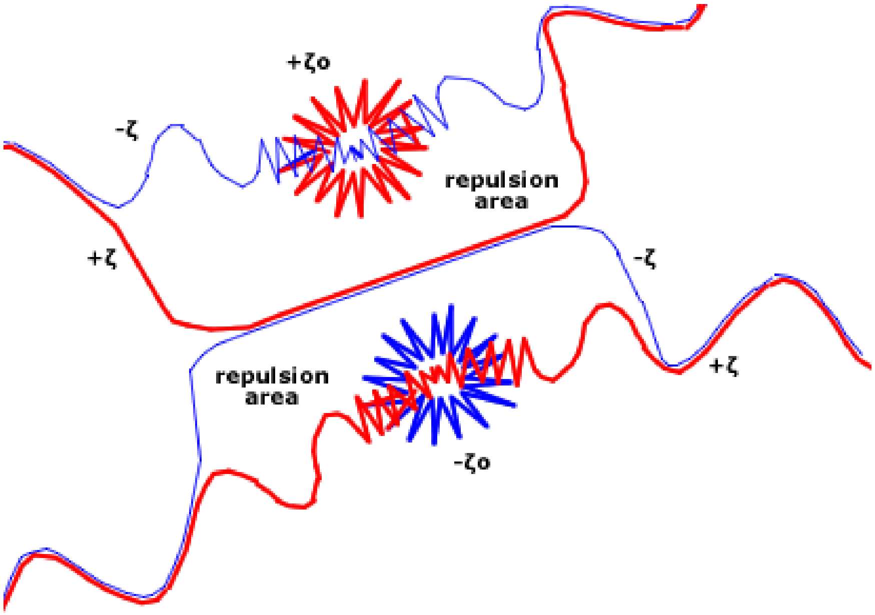
Further attractive interaction was achieved with charged closed-loop $\boldsymbol{\zeta_o}$ splitting neutral $\boldsymbol{\zeta}$ into charge counterparts due to repulsion and attraction of charges and then attaching themselves to the oppositely charged $\boldsymbol{\zeta}$. This interaction would reduce λ (wavelength) in $\boldsymbol{\zeta}$ and increase its frequency $\mathbf{f}$ on the charged side of interaction. The other opposite $\boldsymbol{\zeta}$ would be continuously repelled until it links with an oppositely charged counterpart.



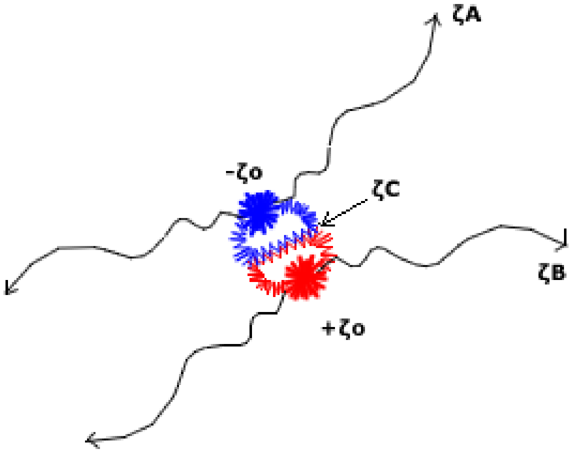
This unique relationship is considered $\boldsymbol{dd = d^2}$.

The bonding of two or more $\boldsymbol{\zeta}$ *increases the dimensional magnitude.*

This same interaction between two opposite but similar constructs would appear as so:



Further along the same interaction it would appear as so:



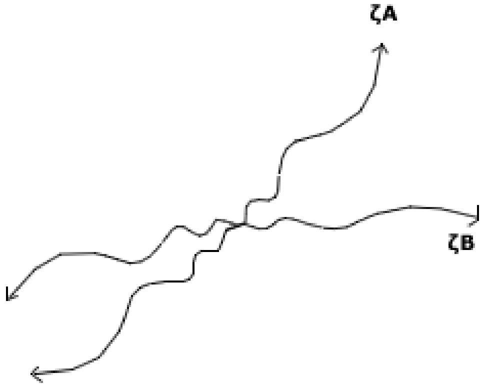
The oppositely charged $\boldsymbol{\zeta_o}$ never touch because of the formation of a "neutral" $\boldsymbol{\zeta_c}$ created between them.

The *dimensional cluster* formed is essentially:

$$\boldsymbol{C_x = B\zeta_B + \left(O_B\overline{\overline{\zeta_{oB}}} + C\zeta_C + O_A\overline{\zeta_{oB}}\right) + A\zeta_A}$$

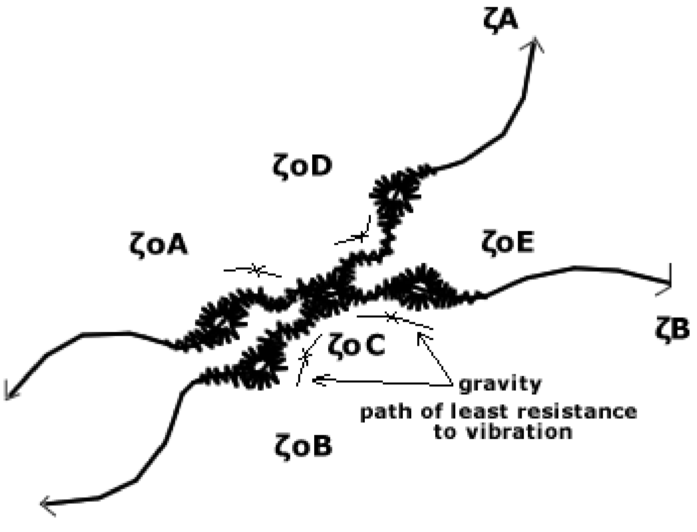
where A, B, O^A and O^B are energy levels (d^0).

Here it is as seen from a "distance":



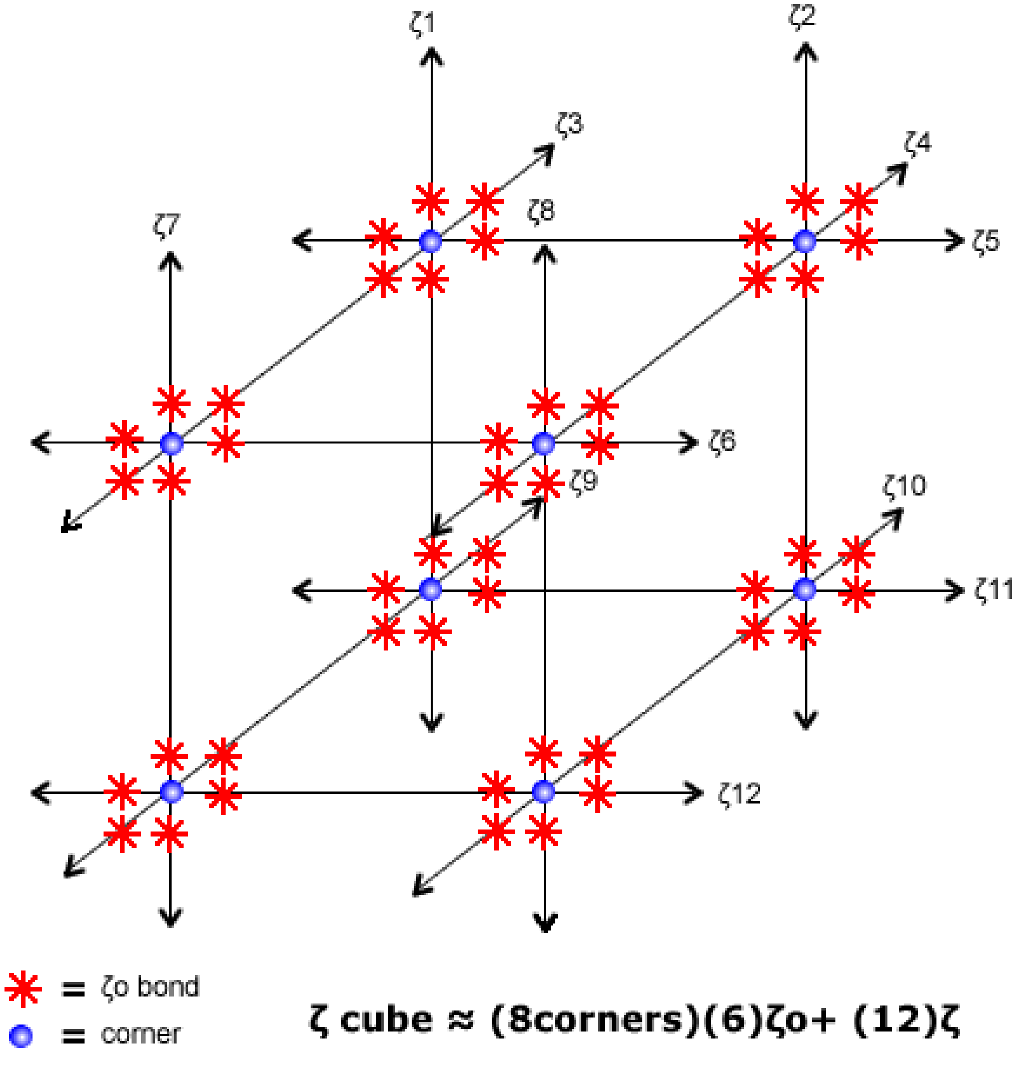
The formation of ζ_c creates a unique ζ which has the same properties that other ζ have but it is confined as a barrier between two charges of ζ_o which together, due to their unique relation as a whole would be considered $dddd = d^4$. This is the fundamental relationship between the difference in dimensional magnitudes. By "multiplying" this process many times over, the dimensional magnitude will increase until a mesh of tangled ζ is formed. *Literally, ζ is the "fabric" of space*.

This same effect can also be achieved by neutral ζ and ζ_o with essentially the effect of "gravity" taking place to bring ζ and ζ_o closer together. The difference is that these neutral constructs would be much more "dense" due to the missing repulsion of same charges and their bonds would be solely dependent on the amount of energy in the construct.



All dimensional clusters, depending on their bond types, position of bonds and energy in the cluster, and effectively each dimensional element, have their own natural frequency of vibration which is the frequency that the dimensional construct experiences least resistance to vibration. Any interference to their natural frequency would cause bonds to weaken or break and de-cohesiveness throughout the construct with an ultimate effect of disassembling the dimensional construct.

Dimensional Cube



ζ cube ≈ (8corners)(6)ζo+ (12)ζ

A dimensional cube represents our notion of 3D space and is of dimensional magnitude of 60 based in the conceptual tool used to define these conceptual bonds. I believe that actual 3D concept is intrinsically connected with space-time, and just like time and space, our current notion of 3D space is inseparable. Again, and I stress this, the concept of dimension is a conceptual tool and is being used as tool in order to build an actual concept. Basically this cube is a mere conceptual construct and “might” represent actual bonds which actually are discussed in a later chapter in the form of space-time vibration and shear/stretching “balanced bond” between two spinning objects of mass or systems of objects.

6.0 Black Holes, Light and all Matter

This chapter is focused on presenting several random important notes relating to what was discussed in the previous chapter. From this point onward, the conceptual tools of space-time tensors will still be occasionally touched on, but for the most part, due to my insatiable desire to derive actuality from concept, space-time (ζ) will be envisioned with the properties of the tensors but appearing as a geometric "3D" space-time Aether; a substance of space and time which is pliable as any object. It is also at this point, the principles of relative realities will assist in defining the actuality of all physics through the mental journey this paper is presenting to you.

Black Holes

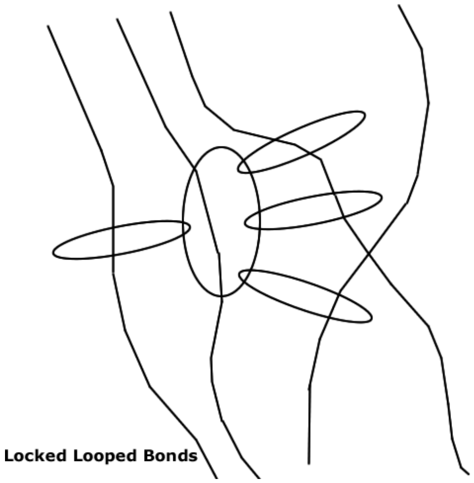
A black hole is an extremely massive dimensional cluster where the *majority* of bonds are very "tight" which contributes to less "space" between bonded dimensions. The same can be said for many quantum particles. Thus "tight" bonded dimensional clusters are denser and thus have more mass in comparison to charge bonded dimensional clusters (less tight bonds) of equivalent volume. For example, water or oxygen in equivalent volume containers, the water container is denser and heavier. Again, as the reoccurring theme of this paper states, bonds too are a conceptual construct in order to visually understand these physical effects as we transition from current perception of physics to a much more actual interpretation. Thus to express what a black-hole might be, envision super dense matter which for all intents and purposes, can barely be classified as classical matter but more like the substance of a proton with a measureable diameter of a baseball, small planet or bigger. It is just like a grain of sand compared to a large rock of the same substance which in this case the substance is more like that of a proton possibly (high density matter).

Evaporation

Black holes, and essentially all matter, in this theory will "evaporate" due to vibration sharing and conversion of energy, though perhaps not completely due to a very special physical dynamic taking place such as perpetual rotational vibration due further to superposition of vibration. That has to be seen but it is assumed to be linked to energy sharing between gravitational bodies through ***ζ*** vibration (the effect of gravity). This process of energy evaporation is what can be perceived as isotopic decay at a hugely different scale but for the most part celestial, atomic and quantum systems are very stable. This evaporation is also related to entropy which again relates to decay and also relates to interaction of different substances resulting in reactions such as molecular (chemical), atomic and quantum. The condensation of more ***ζ*** is a gradual process following *paths of least resistance to vibration* and for this to happen it is required that energy be "shared" with the surrounding, different density, ***ζ***. Any sharing of energy vibration takes into consideration the Law of Equilibrium where energy bonded, denser, dimensional clusters inside the black hole, would have to disperse energy in order to vibrate more ***ζ*** and condense it. This means that energy will always be radiating from a black hole at infinite different waves lengths, and also fundamentally at its natural frequency with an accumulated maximum wave amplitude at the surface of the black hole. But for the fact that black holes have not evaporated completely, at least in our timeframe of reference, means that there is a possibility it can contain other forms of "tight" dimensional bonds comprising the majority of its mass or it contains a lot of energy at a very high frequency, or both. Ultimately, the question should be asked, what is the root source of vibration?

Locked Looped Bonds

One possible conceptual non-charge and non-energy bond is *locked looped bonds*. The problem with any non-charged bond type is energy dispersion (*sharing*) to its surrounding environment will weaken these types of bonds (akin to chemical decay), at least quicker than charged bonds. These bonds are like a tangled mess of strings, puzzle pieces or screwed rivets in building construction. Again this is a mechanism to envision and eventual lead to actual physics of matter.



Black Light

Based on this whole theory and its derivative paths of thought, black holes are stars or just like them and thus also like planets. In this theory, there is no difference between the construct of all space objects because relatively, they are all the same. They are just vibrating at different frequencies and generating different amplitudes of vibration. The frequency of black holes is outside our visible range, but if we could see their frequency, they would be as bright as any star or brighter. The sharing of vibration energy with the surrounding ζ is the same as the visible and invisible light emitting from a star and the cause of gravity. Thus it is postulated that:

Light is the physical effect of space-time vibration, the transmission of energy and the cause of Gravity and Charge attraction and repulsion

The natural vibration of substances of matter is what we perceive as "light", or what we have labeled "electromagnetic" waves. A photon's energy vibrates ζ, condensing and non-condensing it in the form of a wave. All light changes the density of ζ including the light we do not see such as the light irradiating from a black hole.

Matter of Difference

All celestial bodies are the same except for their natural frequency of vibration. This natural frequency is due to the paths of least resistance to vibration in the internal dimensional constructs. When some substances come into contact with other substances, they have the collective natural property to vibrate at a collective frequency (wave superposition). This has relation to the effect of dissolving two or more substances together where the characteristics of the final blend exude unique characteristics collectively. This is why gravel, sand, soil and many rocks are classified as a whole even though these substances are comprised of many other "pure" substances (elements and molecules).

Heat

This means that black holes can be perceived as "hot" just as the Sun is "hot" though they might never burn us. Heat is a perception of ours which is actually **ζ** vibration with interfering frequencies, amplitudes and phases which loosens our dimensional bonds (molecular bonds) in our Human bodies. Extreme "heat" is really just extreme frequency, amplitudes and phase interference in **ζ** vibration that can destroy our dimensional bonds in our Human bodies. Our bodies have evolved to understand that certain frequencies, amplitudes and phases in combination are destructive to our dimensional bonds (cellular, molecular, atomic and sub atomic or quantum) and has labeled them as "heat" where they can "burn" us and the worst can "dismantle" us. It's all a matter of perception.

Density

Black holes are extremely dense, so based on some current theory, worst case scenario black holes should be a quantum singularity? Right? Here I am just addressing a common misconception about black holes. According to this theory, some can be very dense, but no matter the density they all radiate light (**ζ** vibrations) over **ζ** due to their natural frequency of vibration. That vibration is what causes gravity and creates a balance between the internal dimensional construct in the black hole and its environment. The more matter and **ζ** it absorbs (adds to it), if it absorbs it in the manner we perceive as absorbing and absolute, the more light vibration it will radiate and higher frequencies and amplitude thus expending itself back into the surrounding "environment". Thus black holes are perhaps the "brightest" stars in the Universe since their gravitational "attraction" is the greatest. They are definitely not a vacuum sucking up space-time and the surrounding matter absolutely. For example, and relatively, a black hole might be a lead atom in comparison to the hydrogen atom at a celestial scale.

The Singularity & Undefined Zero

With regards to the notion of a quantum singularity, the most probable postulation is that all matter, space and Existence itself is self propagating just as light, electromagnetic ripples, are self propagating over $\boldsymbol{\zeta}$. One reality supports and assists making the next reality and so on infinitely. Infinity again is another concept developed by man to classify very large series of something. Mathematically, any number divided by 0 results in infinity or an undefined result. Physically and directly relating to this theory, what is the cause of energy, which drives all things in existence at all reality scales? We quantify energy in our reality as an abstract notion that provides power and does work to all systems we see. Our human bodies are one of those systems. This energy is usually understood to come from our reality's sub-construct which is immensely small and in which the passage of time is accelerated in relation to ours, but it is still a relative representation of our reality at a different scale. So again, what "thing" drives existence? What powers the quantum, and sub-quantum which relates to force which further we perceive as powering the celestial scale system and so on? What is the source of all vibration to put it simply? Physically, the existence of nothing is not real, thus everything is something, so what we perceive as nothing or infinity mathematically translates into something physically. This something real is what I would speculate as the *source of all vibration* at a collective infinite sub-quantum level all the way to the ends of the Universe. Thus a quantum singularity is possibly the physical translation of 0 and infinity. Now this is mathematics-to-physics speculation, a notion which needs further analysis before being dismissed. So following this train of thought, envision for a second the possibility that $0 = \infty$. Crazy notion, though it's not as crazy as postulating the notion of dimension being constructed of itself. Lets examine this for a second.

Defining 0

Say we have 1 bottle of water and we'd like to divide it amongst 2 people. The result would be ½ bottle per person. It is physically accurate, and can be proven experimentally.

Now, say we wish to divide the same bottle of water amongst 0 people. The mathematical result would be infinite bottles per person, or an undefined number of bottles person. Physically, we still only have one bottle because it wasn't shared with anyone, thus it wasn't divided at all though in verbal notion it was divided amongst 0 people. 0 people means no one, which I need to stipulate because sometimes the wording, as in many of our definitions, can be misleading. So the bottle was divided amongst no one. The point here is that there is a fundamental problem with the mathematical rule of 1/0 = undefined. And this problem translates and breaks the *current* rules of mathematical algebra, but this break also leads to a mathematical insight:

$$ab = c$$

$$\frac{c}{b} = a$$

If b=0 and c =1 then, which represents the bottle divided amongst 0 people

$$a0 = 1$$

$$\frac{1}{0} = a$$

Thus

$$a = undefined$$

$$(undefined)(0) = 1$$

$$\frac{undefined}{1} = \frac{1}{0}$$

Since the 1 = 1 bottle and 0 = # of "imaginary, non-existing" people (the notion and concept of non-existence) and the physical end result being still 1 "real" bottle on the shelf, then the following logic can be followed where **r** is a real number (physically real).

$$\frac{undefined}{1} = \frac{1\boldsymbol{r}}{1} = \frac{1}{0}$$

So 1 real bottle divided by 0 imaginary "non-existing" people still results in 1 real bottle

$$\boldsymbol{r} = \frac{\boldsymbol{r}}{0} = \frac{\boldsymbol{r}}{\boldsymbol{n}}$$

Where **n** is the imaginary concept of non-existence and **r** is some physically real. Thus

$$\boldsymbol{r} = 0(\boldsymbol{r}) = 0$$

is also

$$\boldsymbol{r} = (n)(\boldsymbol{r}) = 0$$

The reverse also holds true. If we have no bottle of water and divide it by 3 people, the result is no one has a bottle of water. But we still had to divide the *imaginary notion* of a bottle of water that didn't exist. So this notion of a non-existing bottle of water is a single quantity, since that is how we have envisioned it. So essentially, we are substituting the physical reality of a non-existing item with an imaginary notion representing its non-existence and then dividing that among 3 real people with an imaginary result of 1/3 non-existing bottle per person. Thus the following rule would hold true:

$$\frac{0}{\boldsymbol{r}} = 0 = \frac{\boldsymbol{n}}{\boldsymbol{r}} = \boldsymbol{n}$$

The fact is, physics is intermeshed with mathematics. We can't divide a physical nothing, but we can divide the notion of its non-existence, which is a substitution we naturally and unconsciously do all the time in mathematics. We have as a society, over the ages, been unintentionally lead to believe that mathematics is a self supporting entity detached from the physical world, even though the genesis of mathematics was given birth in the physical realm and not via an abstract birth on paper. Mathematics has and always will be a quantifiable representation of physics and we must not lose sight of this. Studies in mathematics can reveal relations in the physical world yet to be discovered, but the same goes, and I believe and much more easily, in the other direction since we are physical beings. At the point where something physical becomes nothing, all we're left with is its notion of non-existence, which is an imaginary element since we cannot physically hold it but can image its non-existence. What does this mean? It mathematically translates into another mathematical state. It can even be called mathematical realities of real and imaginary where 0, the notion of nothing is something and quantifiable in regards to its context, takes on the value of

1 in an imaginary reality. Thus whenever a notion of non-existence is used in relation to the physical existence of something else, then the result would be real in the realm of the imaginary.

Therefore a theoretical definition of zero is:

$$\frac{a}{b}\boldsymbol{r} = \frac{a\boldsymbol{r}}{b0} = \frac{a\boldsymbol{r}}{b\boldsymbol{n}}$$

$$\frac{a0}{b\boldsymbol{r}} = \frac{a}{b}0 = \frac{a\boldsymbol{n}}{b\boldsymbol{r}} = \frac{a}{b}\boldsymbol{n}$$

$$(ab)\boldsymbol{r} = (ab)0\boldsymbol{r} = (a\boldsymbol{n})(b\boldsymbol{r}) = (ab)0$$

Where *a* and *b* are any numeric value representing their respective real or imaginary *notions*. For example, if *b* in the first equation represents a single notion thus its value would be 1 where *a* can represent multiple physically real values such as 1 bottle divided by 0 people (1 notion of non-existence).

Of course this all leads to concept of negative numbers and their relation to the physical world. For example, if you have 3 apples and give 2 apples away, then you're left with 1 apple. Simple and makes sense physically. Now let's say you have 3 apples and you give 5 apples away. This would leave you with -2 apples mathematically, but you gave away 2 apples that didn't exist physically. How did you do this? How can you do this? The fact is you can't physically give away something that doesn't exist, but you can give away the idea/notion of 2 apples. We do this all the time on paper especially the financial sector where a good portion of that industry, which drives our economy, works on imagination where the middle-men never touch anything physical, though the physical items may exist. They also deal in the imaginary where people sell the idea of something which then translates into physical money. The stock market is a good example of this. Concept of money itself represents the real via the imaginary. Essentially, you can give away 2 imaginary apples to someone, according to algebra. We then have the imaginary affecting the real because if you had 3 real apples with 2 imaginary apples given away you still owe 2 real apple. How is this possible? It's imaginary which speaks to conscious intelligence in order for this to work and comply with the rule of owing, thus negative numbers, not in relation to vector mathematics, is also imaginary and it to is on the other side of 0 with a counter relationship to the real.

So what does this all mean? This means that zero (0) is the focal point between real things and different imaginary things, where the quantifiable notion of non-existing things is imaginary and that by mathematically utilizing zero you bridge and traverse at least 2 imaginary notions (thus far) into the real and vice-versa.

Now many would argue that negative “things” have real representations in the physical realm. For example, that negative energy exists and that real positive energy added to negative energy of the same magnitudes would result in zero energy, basically nullifying themselves such as anti-matter plus matter resulting in no matter and a release of energy. I suspect many would, but personally I believe the real “negative” notion applies only geometrically representing the opposite direction, and that any other notion of negative mathematically is imaginary thus only in our conscious minds.

Anti-Matter

Since we briefly touched on it, what we perceive to be matter and anti-matter is really just difference resulting in the effect of gravity between two particles at specific same masses, densities and radiuses in relation to each other. The fact is that quantum particles may shatter themselves in such away resulting in undetectable sub-quantum particles, but sub-quantum particles are still matter in direct relation to our perception of matter. Also, two apposing energy waves can null each other, but the energy will always remain real and convert into another form such as potential energy manifesting itself in the expansion of $\boldsymbol{\zeta}$. The physical truth is that the imaginary isn’t physical but yet is still real for the mere fact that it is a topic of discussion and can be used to manipulate physically real things though it might first reside in the imagination of which is the human definition representing a realm of thought. If the imaginary is not real, not physically tangible, then many of the concepts and notions of physically tangible things would not exist.

At the end of all this, all we have are concepts and notions of what is real and imaginary of which all is an interpretation derived by the conscious observer which is us.

Thus, the real blends into the imaginary and the source of all natural Universal vibration is real but where it originates is imaginary.

Earth Light

The Earth is also a star at a completely different frequency and amplitude range compared to other celestial bodies including the Sun. This means it radiates light also, just as Sun Light. We can't see Earth Light because our eyes, just like our sensation towards what we perceive as "heat", has evolved to see only a certain range of light frequencies, specifically a certain range that the Sun radiates. So why don't we burn up? Because we are part of the ecology of this planet and thus our own bodies vibrate close to the frequencies and amplitudes of that of the Earth thus can handle the Earth's "heat". Everything is relative, it's possible that aliens from a celestial body in space would find Earth inhospitable due to the excessive "heat" it radiates, which is just like how the Sun affects us. In fact, it's possible a "Sun entity", if one were to exist, would find Earth very "hot" or too cold.

Light Matter

All matter radiates light, but again, our eyes cannot see it. This light, which again are ripples in $\boldsymbol{\zeta}$, are the cause and effect of the force of gravity between all "matter". A device known as electromagnetic spectrum analyzer is capable of translating these lights we cannot see into light frequencies we can see, but no device is able to visual see extremely high frequencies and low amplitudes of quantum and sub-quantum particles. *These vibrations can only be seen by measuring the forces between these particles* (as will be explained later).

The Sun Isn't Burning

Relatively speaking, we consider the Sun a burning ball of flames and that's true, but it's not actually burning anything. The Sun, and again all matter, is actually vibrating the surrounding $\boldsymbol{\zeta}$ so intensely at a large accumulative (superposition) amplitude at it's surface generating low density $\boldsymbol{\zeta}$ compared to Earth's surrounding $\boldsymbol{\zeta}$ and this vibration is observed by us, humans, as flames, heat, and most importantly, light. Light has a vibration amplitude less than that of fire flames, thus light generates more dense $\boldsymbol{\zeta}$ than the space-time density generated by flames. This being the case, the Sun will "burn" indefinitely since it will never exhaust any fuel, then again, the Sun is sharing its energy with it surroundings which in theory would lower its energy level over time; essentially decaying. If this was the case, then the Earth would also lose energy resulting in it "burning" out.

Personally, I cannot see the Earth “burning” out, thus the Sun will not “burn” out also since it too is in its natural state just like the Earth. What we have observed as red giants, which have been classified as dying stars, must be re-examined to determine what causes red giant syndrome in stars. What again must be understood is that relatively celestial systems, in direct “relative” comparison to atomic and quantum systems, are extremely stable systems and for any of these systems to decay, foreign influences must be involved. I’ll branch out just a little here and state that foreign influences could possibly have intent which would indicate intelligence and consciousness.

Planetary Spin

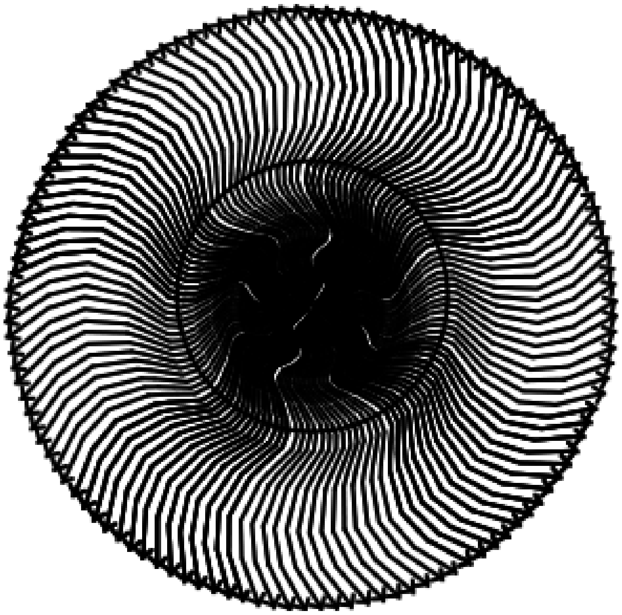
The cause of planetary spin is partially due to density of ζ between a planet and its star being lower density (higher energy) than the ζ between the planet and outer space. Essentially, a planet rolls over less dense ζ; high amplitude ripples, perceived as “heat” and considered photonic light, which require the absorbing mass to be able to absorb it at a specific rate of absorption which translates into repulsion and can literally be translated as buoyancy. That isn’t all of it. The spin of the Earth is also partially due to the different absorption levels of Sun Light on different parts of the Earth. Basically, the Earth has no two surfaces that look the same and in fact have huge surfaces that “absorb” Sun Light at vastly different rates. These surfaces are the oceans and land, but spin alone isn’t sustainable by this effect alone and, if anything, this effect would diminish over time. For a current, standard physics perspective, gravity “pulls” at a different force between the oceans and land on Earth causing it to spin. But again, this isn’t the complete reason why the Earth spins. It also spins independent of the Sun, and the for the same reason the Sun also spins, due to the internal superposition of ζ vibration contributing to the spinning of the planet or celestial object as it does with all objects of matter. The superposition of ζ vibration at the surface of the Earth that is emitted is at a slanted vector to the Earth’s surface (less than 90 degrees) and these waves push against the surrounding space-time (ζ) resulting in perpetual spin. This is the cause why planets spin and especially why the Sun spins perpetually and could possibly be used as a mechanism to develop a perpetually spinning, energy producing machine. I see this device being constructed by a uniformly built magnetic sphere but this will require more thought, but in theory it would produce unlimited free energy in the form of electric energy.

Planetary Positioning

The planets are positioned where they are because of *two natural gravitational effects* taking place with direct relation to vibrations in **ζ** (effect of gravity). As it has been said, vibration condenses or *fluctuates* **ζ** density *(light)* and pulls together objects of matter, the sources of vibration (light). As they get closer, their frequencies interact at different phases where depending on their natural frequencies and amplitudes, at some distances, the pull is completely cancelled or at least weaken due to destructive interference. If Total Destructive Interference is created, than the pull will turn to repulsion/push. The dance of pull, weakening and push along with the orbital velocities of the planet due to the centripetal force caused by the heliospheric winds of the Sun, which is the gravitational spiral curving of **ζ** (distortion), allows the planets to maintain their orbits indefinitely unless acted upon by an external influence.

Matter: The Big Picture

Fundamentally, **ζ** (d^1) can intersect, link and bond into various shapes of which there are some *primary* types of bonds such as *charge bonds* and *neutral energy bonds*. These constructs keep growing and growing forming a massive mesh of intertwined **ζ**. The more energy d^0 (possible consciousness) this mesh has the smaller λ becomes the smaller the mesh becomes and the more **ζ** it pulls in from the surrounding environment adding to the mesh. The tightest, smallest and the oldest would receive the transmission of energy (vibration) last because they would be deep in the mesh at its centre.



This mesh is in itself a reality *if there were to be an observer inside* it, thus it would have a corresponding *realistic equation*:

$$\boldsymbol{R^z = d^0 \sum_{n=-z}^{z} K_n d^n}$$

The mesh of $\boldsymbol{\zeta}$ can only get so small because of "charged" bonds inside it keeping things at a distance due to the "neutral" barriers of "charged" dimensional bonds form. These constructs take up more "space" or create more "space". This repulsion cavity makes dimensional clusters less dense. The less dense a dimensional cluster is the less dense surrounding $\boldsymbol{\zeta}$ will be due to less superposition of vibration in the dimensional cluster.

7.0 The Breakthrough

It was at this point in my thinking process, though it was touched on prior in this paper, that I made a mental breakthrough in my accumulation of theories and the reason I decided to write and formulate this paper, otherwise I would never have due to personal doubt in my older theories. Now I truly believe this realization of a true core theory, which had been staring me in the face for years, is hugely significant and needs to be shared. This breakthrough was more of a personal breakthrough in my underlining thinking and understanding of the physics of space-time. The breakthrough was the point of realization that my definition of space-time string would define fundamental forces by applying string interaction in relation to space-time vibration and wave theory with total destructive interference interaction resulting in complete repulsive force interactions between objects of "matter", especially in regards to spheres. It also became apparent to me that spheres, in fact all matter, naturally act as an amplifier of space-time vibration. This vibration of space-time manifests itself as actual light, which I believe to be a spectrum of visible space-time vibration along with *invisible* light (space-time distortion waves), was the cause of the gravity effect between celestial bodies and matter. The thought continued and which led me to realize that the spin of an object in space-time is caused by this amplification of space-time vibration through a sphere's body pressing against the nominal space-time surrounding the sphere and also that an object's spin contributed to attraction and repulsion with other objects by causing a shearing effect (stretching) of space-time depending if these objects were spinning or not. By combining spins of two or more equivalent objects along with quantum vibration of space-time being emitted by these objects at their surface would essentially form a balanced bond of attractive and repulsive forces akin to a molecular bond. The breakthrough thoughts didn't stop there, it was explosive and it happened to me when attending New Years Day church mass. This validates that I day dream quite a bit during church sermons which is something I'm not too proud of. By gaining this moment of true clarity, I began to understand the true nature of forces and how to apply my version of string theory to actual space-time because now I truly believe I understand space-time as a tangible "substance". It also became apparent to me the similarities between the classical notion of Aether and this new realized notion of space-time substance containing density. Though the classical Aether and my version are similar, they are also different. In my version of the space-time Aether, light vibration will bend light (refract) as it passes between two different densities of space-time. If the density transition is gradual, so will it appear to be bending light as it gradually traverses through the incremental space-time densities which is something we have misclassified at the effect of gravity on light. Essentially, I realized with an extraordinary level of clarity that dimension, which I have theorized it to be d^1 in very rudimentary mathematics, was space-time and that it was infinitely homogenous (space-time is not porous at any scale), self defining infinitely, that it has all the properties of bucket of water thus can be manipulated by moving, vibrating and spinning objects in it. The most important realization was that space-time is always perceived by the observer at a constant density accept when two densities of space-time interact (magnetic fields), such as when an object is in acceleration. This also lead me to realize that space-time takes "time" to be distorted and effect an object's internal structure (the Universal Law of Space-Time Permeation). This all lead me to understand several days later that if the observer always perceives space-time density as constant and if the observer is in acceleration, the observer's actual size would "shrink" in order for this to be true; as a result the observer's body would distort/bend space-time making it denser in front and less dense behind. This thought explosion continued for weeks and I felt completely overwhelmed but couldn't stop thinking about it. What I was realizing and eventually roughly formulated was that as an object accelerates and approaches velocity of light (**c**) that the object would "shrink" to a quantum size and experience the passage of time $3x10^8$ faster relatively, essentially **c** times faster, as perceived from stationary observer. Also I realized that the speed of light wasn't an actual speed limit at all but also an acceleration limit. Thus the greater the acceleration, thus the greater the force, *possibly* with a max acceleration of $3x10^8$ m/s^2 the same physical shrinking will happen almost instantaneously if the acceleration were to be applied uniformly over the entire accelerating object. This train of thought continued on, and eventually lead me to a concept I developed and noted in my University Calculus book back in 1995, the concept of space-time distortion and that all objects distort space-time when in motion, but now it lead me to incorporate space-time vibration, with moments of acceleration and deceleration, to achieve distortion which essentially changes the density of space-time, thus my original concept of distortion would now also incorporate the notion of space-time density. Numerous detailed applications came to mind with profound implications. Distortion can occur by various means and each form of distortion application can lead to various effects including the perceived bending of light and space-time jump travel faster than relative speed of light. I also realized that no object of matter could ever reach the speed of light relative to the object itself (be measurable as we perceive velocity), but could profoundly pass the speed of light relative to a stationary observer. This stationary observer would essentially be looking at a celestial object transforming into a quantum particle. The size shrinking lead me to pursue the value of scale difference (S) between the quantum and celestial realms and which then lead me right back, again through this mental explosion, to my original theory that quantum and celestial realms are relative realities. Then it hit me when formulating some of the equations involving mass, that our notion of the cause and effect of gravity was equal to cause and effect of the forces of attraction and repulsion relative to "charge" of quantum particles. Essentially, weight (mass-gravity) was relatively equal to charge (q) and the new formulated relativity mass equation supported this notion with very basic mathematics. The celestial and quantum realities were relative equals.

I had so much material in my head that I began writing everything down in multiple notebooks; endless writings, notes and equations. Every possible waking moment into the early morning comprised of sorting through all these thoughts and formulating them as best I could. I also realized the danger of what I believe I discovered, even though it was just ideas, notions and concepts. The applications could be dangerous as well as very beneficial, so I decided to take my time and write this accumulative paper (book) and truly express these thoughts as best and conservatively as I could. I wanted to express my concerns and to intensely warn everyone of the danger some of us might inflict on the Universe with some of this knowledge.

The Warning

We are our own worst enemy. Why? Everything we touch, ends up damaged or killed including our neighbours. We've been like a virus on this planet and most certainly would be one in the Universe. We are fighters even though we might have nothing to fight for so we create reasons which last for generations resulting in destruction and death. We need to achieve a higher level of enlightenment, but currently, many of us, possibly the majority of us, are selfish and greedy. Some of this is a result of fear and a need to survive and no one person can change this mentality, but I'll try with my idealistic hope. Essentially my moments of clarity ultimately lead me to a very speculative belief but backed up by logical objective thought. We are conscious observers and that consciousness transcends real realities and is possibly the true fundamental building block of everything along with space-time, meaning it is part of space-time, and essentially is everything. We really don't actually die even when we physically die which is not a new notion but now its supported by some logical reasoning instead of simply on faith, though its still could to have faith. This is harder to explain, but as an object shrinks into the quantum scale and then continues on into the sub-quantum and so on, it will never reach an end thus infinitely small and it is possible that in between a small empty space are entire infinite Universes travelling at unimaginable relative velocities, even though to themselves traversing what we perceive to be a foot could take thousands or even billions of years relatively to these realities. We at our scale can still interact physically through space-time distortion and apparently including with simple mental thought. What became very clear for the first time to me is that our physical thoughts influence and are derived from quantum, sub-quantum, sub-sub-quantum interactions in our brains and through our nervous system which essentially are comprised of relative equivalents to celestial objects and yet we move them with our thoughts. What is a thought physically? What makes these quantum planets move just by us thinking? I've speculatively theorized it to be the "will" of the observer which literally affects space-time, even if it is at the quantum scale, or especially so. But how? The will of the observer is abstract and cannot be tangibly understood currently, but yet with it matter can be manipulated. I came to the conclusion that our thoughts, a portion of them exists in space-time itself. Thus consciousness, or a portion of it, also exists in space-time itself and when we think and have will, we can manipulate space-time, cause ripples or change its density, in order to manipulate matter as in the form of quantum particles. Quantum particles too, are made up of space and time, thus in theory thought could also manipulate the physical construct of quantum particles and all particles comprising their sub-structure (and so on). Therefore thought, consciousness and "will" transcends our perception of the physical because it is from space-time this existence of consciousness exudes from. Wherever there is space, there is consciousness because in order to perceive space there must a conscious observer. We then exist before and after death because space will always exist. This leads me to ask why should we struggle so hard and make our lives and especially the lives of our neighbours so difficult. Consciousness, as it relates to this paper's collective theories, is like energy that cannot be created or destroyed but transformed from one energy type to another. This very logical and I believe scientifically logical approach. It validates the concepts of the soul and spirit as it is taught in many world religions and as it applies to these collective theories in relation to real physics. Yes, it boarders along the lines as being speculative, but I will definitely explore this train of thought and attempt to formulate it. What I have concluded preliminarily is that many random and seemingly unnatural celestial events that we are currently observing in the night sky, even though there is a legitimate scientific study of the event, might be intelligent from a thought process of a super-celestial being of which our perceivable Universe is physically a part of. For example, supernovas, as we currently understand them, should probably never occur. According to parts of this collective theory, even though stars constantly expel energy in for the form of space-time vibrations (the cause and effect of gravity), but the fact these events do occur could be the middle process in a thought in order for potential gravitational forces to fluctuate and form celestial movement which could result in the super-celestial entity sending a signal through his nervous system in order to move a limb via a gravitational/charge pulse in our perception of outer-space. I'm not saying our current understanding of supernovas are wrong, but I suggest that we look at these events through the eyes of this collective theory and re-evaluate our current assumptions. As I stated before, I had personal doubts in my original theories thus why I never published any of my work, but I have to stress here that I did not publish any of my original work not due to possible ridicule from any community, scientific or not, but out of self satisfaction in the quality of my theories. I needed these theories to validate a sense of content in my reasoning with regards to physics which I believe they have now. I consider myself very logical and a realist and understand there will be people interested in what I've written here and others who boldly dismiss me. This is the natural process and I expect nothing less, but it is not logical that ridicule be the only reason to hide this work from the public and from those of you who are open to a new perceptive with regards to physics as a whole. We as a people can only elevate ourselves collectively thus through communication and collaboration which must be initiated by an idea. What if we are not alone in the Universe and we are one of an infinite number of life forms coexisting with us in the Universe? It's possible to the more advanced of these entities, that they would see us as extremely dangerous if we possessed they're knowledge and technology, thus it would be in the Universe's best interest that Humans be policed. Why? We are violent, destructive, selfish and greedy. Some of us would use any means to achieve their desires even though those desires mean nothing in the end. We are killers, stealers, most of us are liars. There is the need to survive and we use many of these horrible methods to survive which speaks to greater problem with our society as a whole because society generates the need for some of us to do this. Personally, doing anything considered unethical in order to survive is much less if at all "evil" than those of us who commit unethical behavior for reasons other than survival. I am referring to physical survival not political, economic or reputation. By doing wrong against a neighbour and feeling satisfaction is evil, but if doing wrong results in true deep remorse that is not evil even though it was wrong. The Catholic Church, even with its shady history, many Christian churches and most good religions all teach us, "don't do unto others what you wouldn't want done to you." It can be misinterpreted as an eye-for-an-eye, but then what would that achieve; an endless loop of unethical behavior based on the premise of revenge. How we should read this is that even if others wrong us, we should not accept it, we should defend ourselves ethically and not feel that we can do the same thing in return and feel absolved from remorse because we would still be doing wrong. We should rise above those who commit offenses against us but we also must be humble and not feel that we are better than others because we feel more ethical. That self-righteous feeling negates good ethical behavior and can be more destructive than good. Now what is considered ethical is subjective so I would say ethical behavior should fall in line with not treating others as you wish not to be treated. Of course, some of us might like being treated badly in which case don't also treat others as they don't want to be treated as it pertains to majority of the populous. It's very apparent my religious background bleeds through in my writing, not because I blindly follow the church doctrine, but because I truly believe in many of the teachings of my religion and that of many other religions now more than ever, because we need to achieve global harmony. It is essential to our own Universal survival as the Human race.

The Reason

What is the reason we exist? What is our purpose? Based on the somewhat logical and speculative preliminary thought, and following the notion that consciousness doesn't "die" and is possibly space-time itself, or part of it, implying that space-time is alive thus logically a living entity. Ultimately, how does this all relate to the meaning of life? What are we all working for? If on some abstract level the form of conscious life that we all are truly has no death, then why do we have bodies that live and then die? Why would conscious space-time entities take on frail "physical" bodies and life and consciously decide to live difficult lives as the majority of us do? I can only speculate on why we exist, but personally I believe the purpose to life, all life, is to grow in our perception, knowledge, awareness, enlightenment and spiritually in order to understand our existence, before, during and after death.

Collectively, the purpose to life is to grow our consciousness and to expand our perception of reality, because as we become aware of reality and understand it, our perception of reality expands to encompass our new awareness and this process is infinite, thus enlightenment is also infinite. If this is true, try to imagine what will be revealed, perceivable and understood at an infinite level of awareness and understanding. Will all the answers to existence ever be answered at an extreme level of consciousness? I'd like to say yes, but something inside me also hopes that everything will never be answered and that mystery will always remain because then there will also be a pursuit in life, the pursuit to answer.

Life comprises of so many pursuits, such as the pursuit of creating things, even the creation of ideas. One of my favourites is the pursuit of the arts or the pursuit of enjoying the arts. Thus the pursuit of something is the common mystery in life? I don't know why, but the fact we pursue these things makes us feel good, aids in our growth and is a good indication that it is a positive path though I personally stress that these pursuits should be for the self and the common good, not just for selfish purposes because to be just selfish is to limit your reality. Depending the scenario, being selfish can also impose limitations on the reality of your neighbours who are also part of this existence as we all are. How? There are many ways such as taking advantage of the good will of others or imposing restrictive political systems will limit the perception of reality in others. To hurt someone and make them feel worthless limits their perception on reality because being hurt makes the individual see things "negatively" even if they are not and this makes these individuals more susceptible to irrational forms of hurt. Being truly hurt makes them sensitively irrational even if some put on a strong logical exterior. “Negative” as it relates to our “psyche” means narrow minded or of limited perception. This can be, for example, not being able to trust anyone because your father wronged you or wasn’t there. There are a multitude of ways to hurt someone. Many of them are subjective so being aware of the sensitivity in others will help avoid perpetuating their initial legitimate hurt which in time will slowly mend by us assisting them increase their understanding of their situation, help lower their level of sensitivity, increase their level of perception and increase their self-worth. It’s not an easy task, but if the strongest of us were to take on the task of assisting just one other person increase their level of understanding, knowledge, self-worth and help stabilize their emotional sensitivity due to hurt they experienced, the world would be a much better place. A monumental pursuit and very noble one would be to rid the world of hurt.

Being aware of “negative” things and living “negatively” are not the same. One is good and the other is not. You must not hinder the growth of others, but be supportive even if you don’t understand your neighbour. You should understand that they, just like you, are in pursuit of something in order the feel satisfaction, content and to grow. The problem is that most of us tend to always associate satisfaction with material things and pursue the accumulation of material objects in order to fill a void that can never be filled by such means. Let’s be realistic, to have wealth is beneficial on our journey through life, but wealth is subjective so yes it can be money or something else of value. To some of us, and to me, having the love, loyalty and especially the understanding of others in the form of true friendships is a great wealth. In essence, the pursuit itself is the purpose to existence because in everything there is a pursuit.

Personally I believe the pursuit of music is a wonderful pursuit because of a question that has lingered in my mind since early childhood. What makes music so enjoyable? Why does it change how you feel? I love music, almost all forms such as rock, pop, jazz, classical, country and especially dance music. Music with a good rhythmic beat which usually compels me to move which further leads me to sing and dance to it; a secret love of mine. Currently I believe there is more mystery in music than there is in physics, even though both are probably intertwined. It doesn’t require you to know the mysteries of the Universe to create music which is itself another mystery.

What is love? It is a very noble and significant pursuit in enjoying our neighbour's company, to learn from them and them to learn from us. To understand how they think is a wonderful pursuit which leads to the pursuit of altruistic friendship (selfless relationship) which to me is what true love is or is embodied as. To truly love is perhaps the greatest and most challenging pursuit to life. Ultimately we should love everyone because that would give us, collectively, the greatest awareness and help us ascend in our perception of reality which in turn we can then assist our neighbours to achieve this same awareness. To love just one person, or to love just your family is selfish. True love doesn't distinguish between your mother or child and the neighbour up the street or a colleague at work. Why don't mothers and fathers love other children as much as they love their own? Why can't we love someone else's parents as much as we love our own? Why do we have higher expectations of our own parents than of someone else's parents as it relates solely to you? Yes, some of it is derived from our society, our up bring and our environment, but I don't believe absolutely in that. I believe that certain perceived forms of love are not under our complete control and that they are preordained prior to birth. This out of control aspect of our psyche is derived from our genetic programming as cold as that may sound. Thus altruistic, selfless friendships which is a truer form of love usually collides with our genetic drives making the pursuit of selfless relationships an extremely difficult task, but if we understand the mechanisms hindering the pursuit of something that could bring about global change and peace, then we have just expanded our perception of reality allowing us to muster up the will and find the means to do so. I love the saying, "If you truly love someone, let them go." It is a very powerful statement and many of us know how that feels. It conveys the true essence of what I'm trying to explain here. This not only applies to lovers but friends, parents, siblings and children. From a different angle, why don't we just help others? Obviously within reason and means because we still have to contend with our current society and how it still works. Honestly why not just help? Help them to achieve growth. It is noble and there is a common good to helping others. Our basic genetic drives are very, very powerful so we must learn to surpass them and find that will to actually feel and show love for others. Again it's not easy, but difficulty should not be the means to cease this noble pursuit. If anything, difficulty should be a reason why we pursue it.

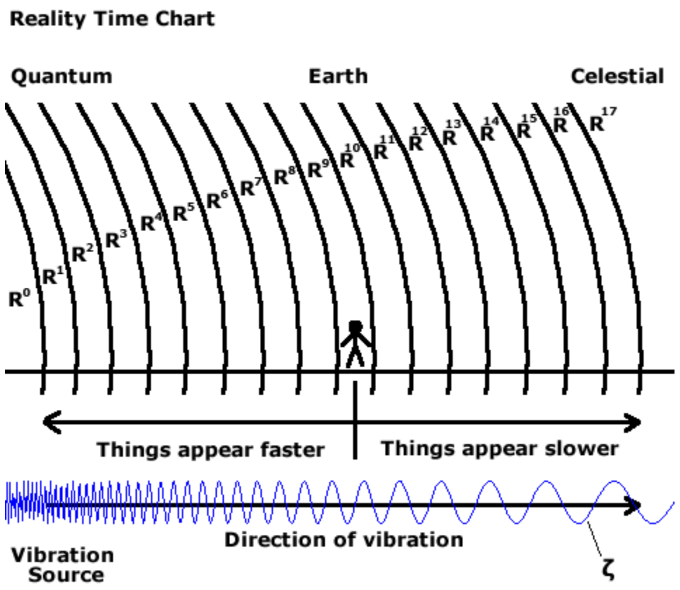
Genetics is a funny thing, especially to a software developer like me. Why? It implies that we are all programmed like machines, which is kind of ironic from my perspective. It also alludes to the question of who did the initial programming. Do we have control over genetics other than through selective breeding and genetic manipulation? I like to believe that we do due to some very logical reasoning. We over time can actually change our genetic makeup through abstract means as well as direct. How can we do this? We can do it through our will to change. Our will to change our most basic drives, be it to control our selfishness or control a compulsion to steal will overtime change us physically. The key here is it must be willed and not cavalierly but seriously. Change can only occur if there is a will. Of course this all sounds like speculation from an archaic philosopher, but I urge a serious course of study on this topic. There was a study sometime ago, when exactly eludes me, but a group of people were asked to envision themselves playing basketball well and a second group was asked to practice basketball to improve their skill. Both groups performed remarkably well even though only one group physically practiced. This is an example of mind willing physical change. You can argue that the group thinking about playing basketball well had no physical change and I'll argue that eye-to-hand coordination was the physical aspect that changed along with their entire physical coordination. No, they didn't grow an extra arm, but for the short time they willed their thoughts to order their bodies to do better, it actually did result in small but real physical change. To continue my theoretical speculation, people that have children at an older age tend to have children that are genetically disposed to greater intelligence. Why? Because these older parents had more time to will change into their bodies, via their physical psyche, which affected their genetic programming and eventually was passed into their new born child. This defies Darwin's evolution in regards to natural selection of random mutations, because in this version, random mutations aren't random at all but willed into existence by the living biological entity.

Due to this mystery of genetic programming, which all life is subject to, we have an overwhelming sense to reproduce and protect our own bloodline. What we must understand is that it is a form of programming. We are definitely not, or should not be, the sum of this programming. No amount of genetic programming will ever order control over consciousness. If anything, consciousness will order and control genetic programming. So it's important to understand that what we sometimes think is love is at times a very genetic response to stimuli which is pre-ordained and programmed into our bodies. An example, and perhaps the most socially acceptable, is the difference between lust and love where one concludes in forms of sex and the other concludes in the mystery of a mutually altruistic friendship. So boldly, when referring to love, I'm not talking about sex, though it can play a part of it. I believe that sex is a genetic drive in order to reproduce, and it is a very powerful impulse that many of us find very hard to control. Sex blends two or more people together involving and giving great pleasure, but it can be very negative as well as very positive and not for classical religious moralistic reasons but because of the Universal Law of Equilibrium, a scientific law which I strongly believe in. When you become aware of something, your consciousness, the actual portion of space-time you exist in becomes aware of that something, but in the union of two bodies or more, the space-time that your consciousness exists in will be blended, be invaded somewhat or totally with the space-time consciousness of the person you're having sex with. Your literal physical space is invaded by someone else's. The best scientific analogy is to refer to the classic notion of energy and how the Law of Equilibrium orders energy distribution. If one of the two individuals in physical union, not necessarily having sex but also in close proximity, has a limited or "negative" perception on reality the other individual's conscious awareness will lower while the negative person's conscious awareness will increase forming an equilibrium between the two. Now this might not be a bad thing if it is to help the "negative" person, but perhaps before forming such a union, one should ask and find out why this person has a lack of understanding (awareness) or is "negative". What is the source of his or her "negativity" and will it continue affecting this individual and in turn continue affecting you by having or being in union with this individual which can ultimately hurt you? And this effect of equilibrium between conscious entities can be multiplied many times over by carelessly being in union with people more "negative" than you and not being aware of the impact to your psyche (consciousness and subconscious) much less your physical health. If you are aware of the impact and the consequences then it is possible your awareness might aid you in handling the negative impact but this might not protect you from being hurt on a level you cannot understand or yet be aware of. For example, some professionals become pessimistic, a negative quality after dealing with countless "negative" individuals, even though these professionals are trained to handle it psychologically. Then again, to grow together in friendship and love in order to help others achieve growth is very noble pursuit, but you must be aware that this is what you're doing and also be aware of the down-side as well of the up-side to such a pursuit. None of this is easy, but I'll state it loud that it is essential to our collective well being. We all need to make sacrifices in order for all of us to grow. Catholic Priests in general and many religious leaders, even psychologists and therapists, study and meditate for many years in order to discipline their minds against the difficult tasks they'll undertake throughout their chosen professions and many do fail but a great many also succeed. Everyone has a slight or significant perception difference on almost everything, thus to include their perception in your reality will expand your reality and then in turn you can share your perception with your neighbours and help them to grow. I use the word perception loosely here. I'm not only referring to perception but also to understanding, knowledge and enlightenment. A different perception doesn't make the perceiver wrong or right, but just being aware of it and exploring our neighbour's thoughts and emotions has a lot of significance, because they too are a conscious entity coexisting with you in this reality. In conclusion, to understand your neighbour also aids in understanding your own existence.

I believe in God more now than ever before, even though because of my logical mind I've had my doubts over the years. I often think how lonely it must be for an entity infinitely aware and understanding everything to have no equal. To have no one for him to truly share his thoughts with in a manner that only a god-like entity could truly understand. This is assuming he is truly alone, but something in me believes there is one source of life, one all encompassing existence, the birth place of consciousness and that perhaps collectively all consciousness makes up God, an entity with no equal because if existence is only one and all consciousness exists in this existence then God can only be one. I can't scientifically truly attest to God's true existence, except through the definition of infinite realities and the conscious will over realities and possibly over space-time as we currently understand it such as at the quantum realm. I abstractly "feel" that God truly exists and that the pursuit and the achieving of god-like awareness will only begin to reveal God's origins which I will label as the Ultimate Mystery and perhaps the reason why we all exist. But we can't do this if we keep fighting each other. I strongly believe our neighbouring Universal occupants, if they exist, will control our expansion into the cosmos if we don't achieve balance and peace with each other here on Earth.

8.0 Realitivistic Relativity

At the quantum scale, particles vibrate and move at unimaginable speeds that it is virtually impossible to track the position of an electron or any quantum particle (quantum probability). At a celestial scale, planets appear to be travelling slowly through the night sky. In fact the outer most planets take many Earth years to orbit around the Sun, while the inner most revolve around the Sun faster than Earth. Is there a link through time? Postulating that the Bohr model for the atomic structure is similar to that of our solar system, then visual perspective is literally the link and this perception barrier involves scale and the passage of time.



Observer

The observer is the key in all frames of reference because it is the observer that perceives the passage of time, experiences distance, size and the effect of force. It is important to understand that the observer, which in our case is in human form, is somewhere in the reality scale and thus composed of dimensional constructs to perceive time relative to this reality. In other words, it is important to understand that the composition, the make up of the observer has direct consequences on how the observer experiences his reality in regards to space and time.

We experience this effect of time everyday, especially for those of us who've traveled at high speeds. Some of us will find the following statement very true because on some level we have experienced it.

High energy observer sees low energy systems as slow, thus perceive time as passing slowly in low energy systems.

***

Low energy observer sees high energy systems as fast, thus perceive time as passing faster in low energy systems.

The energy of the observer can be attributed to many things, but first and foremost his natural environment. In our case and common to all, the environment is Earth which permeates and emits a specific density of ***ζ**.*

Dense **ζ** is perceived by us as high energy and penetrates the observer's dimensional construct (cluster) to its core dimensional cluster at the quantum level and so on. Increasing the density of **ζ** increases the density of the user thus making the observer see systems that haven't been affected by an increase of density of **ζ** moving slowly. The same applies to the low density except vice-versa.

By increasing the density of **ζ** and then applying it to the observer *gradually*, the observer's dimensional bonds will vibrate more (higher frequency and lower amplitude) and "tighten", bringing everything together and "shrinking" the observer. Thus the density of **ζ** with very low amplitude and very high frequency will shrink the observer and increase the passage of time relative to the observer's previous space-time density. If the amplitude increased along with the frequency, this **ζ** environment would "burn" the observer with the ultimate effect of "breaking" the observer's dimensional bonds, essentially killing the observer's physical state in that reality. But remember that breaking bonds is also a notion we use to describe the increased distance between particles and the assumption that they are no longer linked even at great distances. The concept that the size of the observer can change when introduced to different densities of **ζ** has huge implications on our preconceived perception of size especially in regards to the Universe. Things may appear larger or smaller than what they are depending on the stage of density change between the "observer" (us) and what's being observed.

The perceived size of all celestial bodies by an observer is dependent on the density of ζ by the celestial body and its effect on the observers own size after prolonged, gradual introduction to this density.

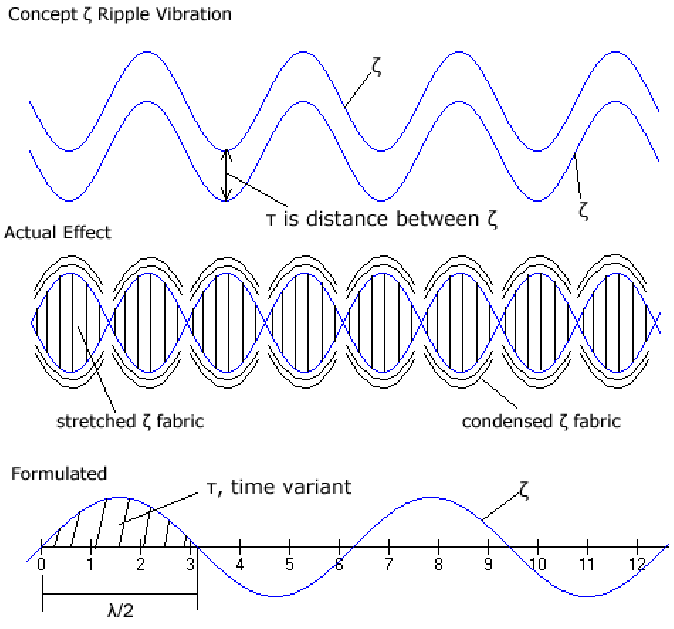
***

All bodies are relatively the same size.

The need for shielding is even more essential in the deepness of space than previously thought.

Time Variant

The effect of time is directly proportional to the area in a **ζ** wave crest (ripple vibration) which is dependent on the frequency and amplitude of the **ζ** wave which in turn are dependent on the source of vibration which is what we consider "matter" which is condensed **ζ** resulting from an unknown factor where areas of space become more dense and form this "matter" as perceived by the containing reality.



The larger the amplitude of the vibration in ζ fabric, the "slower" time is and the less dense ζ fabric is which means distortion of ζ changes time.

$$\boldsymbol{\tau = \ distance\ between\ two\ \zeta}$$

A rough estimate for tau would be

$$\boldsymbol{\tau = \sqrt{\frac{A}{2f}} = \sqrt{\frac{A\lambda}{2}} \cong \sqrt{\frac{r_{system}\lambda}{2}}}$$

Assuming the $\boldsymbol{\zeta}$ fabric is homogenous and not possible to separate but only stretch, then pockets of stretched $\boldsymbol{\zeta}$ fabric, for example ripples of light vibration are again roughly formulated to be:

$$\boldsymbol{\tau = 2\int_0^{\lambda/2} A sin(\omega x) dx}$$

$$\boldsymbol{\tau = 2\int_0^{\lambda/2} r_{system} sin(\omega x) dx}$$

Where r_{system} is the radius of the quantum, celestial or any rotational system that distorts $\boldsymbol{\zeta}$ due to its composition and rotation which results in the generation of vibration as perceived by a containing observer (systems reality plus one).

$$\boldsymbol{\tau \uparrow \ \ relative\ time\ passage\ \downarrow angular\ velocity\ \downarrow}$$

$$\boldsymbol{\tau \downarrow \ \ relative\ time\ passage \uparrow angular\ velocity \uparrow}$$

Reality Scale Constant S

The scale constant is to represent the *difference in size* from the celestial reality to the relative quantum reality.

$$\boldsymbol{S = \frac{r_{Inner\ Solar\ System}}{r_{Be}\left(\frac{r_{Inner\ Solar\ System}}{r_{Outer\ Solar\ System}}\right)}}$$

$$\boldsymbol{S = 5.625x10^{22}}\ roughly\ calculated$$

$$\boldsymbol{S = 5.625x10^{22} = c_o{}^{2.68}, \qquad c_o = 3.0x10^{8}}$$

$$\boldsymbol{2.68 \approx e = 2.718281828459}$$

$$\boldsymbol{S = c_o{}^{e} = \ c_o{}^{2.71828\ldots} \ = 1.10459x10^{23}}$$

S is equal to a $1.10459\text{x}10^{23}$ scale difference between quantum and celestial realities which was derived from the Beryllium atom relation to our Solar System. I believe this by far the biggest discovery in this paper which is the relation between $\mathbf{S}$ and $\mathbf{c}$ ($\boldsymbol{S} = \boldsymbol{c_o}^{\boldsymbol{e}}$).

Reality Time Scale Equations

The scale constant is used here in order to assist the *difference in time* from the celestial reality to the relative quantum reality. The mathematics derived here is *rudimentary*, but represent the nature of the two realities as they relate to each other quite accurately with regards to passage of time. There are two sets of equations derived here for the same variable. The first is using the concept of quantum second (s_q) which is $3\text{x}10^8$ times faster than our own celestial second (s). Quantum second is explored later in this paper. The second method is derived using the value constant H which was derived from calculations involving neon-helium laser measurements.

Defining the first equation and the most conceptually accurate to this collective theory since it considers a specific calculated quantum second, we must describe the relative constant $\boldsymbol{R}$.

$$\boldsymbol{Earth's\,radius = r_E = 6.378x10^6 m}$$

$$\boldsymbol{r_e = \frac{r_E}{S}}$$

$$\boldsymbol{R = c_o r_e{}^2}$$

where $\mathbf{c_o = 3 \text{ x } 10^8}$ *(no unit).* This equates nicely to quantum second at the size of a quantum Earth which is the size of a relative electron or smaller ($r_E \rightarrow r_e$).

Thus the final equations are:

$$\boldsymbol{R = c_o r_e{}^2 = 3.857x10^{-24} m^2}$$

$$\boldsymbol{\Delta t_q = \Delta t_o \left(1 + \frac{R}{r^2}\right)}$$

$$\boldsymbol{\Delta t_q = \Delta t_o \left(1 + \sqrt{\frac{R^2}{r_1{}^2 r_2{}^2}}\right) = \Delta t_o \left(1 + \frac{R}{r_1 r_2}\right)}$$

Second possible version though I prefer the first

$$\boldsymbol{H = 2.183x10^{-16}m^2}$$

$$\boldsymbol{\Delta t_q = \Delta t_o \sqrt{1 + \frac{H}{r^2}}}$$

$$\boldsymbol{\Delta t_q = \Delta t_o \sqrt{1 + \frac{H}{r_1 r_2}}}$$

*$H = 2.183x10^{-16}m^2$ **
r = natural /non-distorted radius of the relative object
Δt = is the relative difference in time based on scale. This formula can be used to calculate a rough estimate of a quantum second.

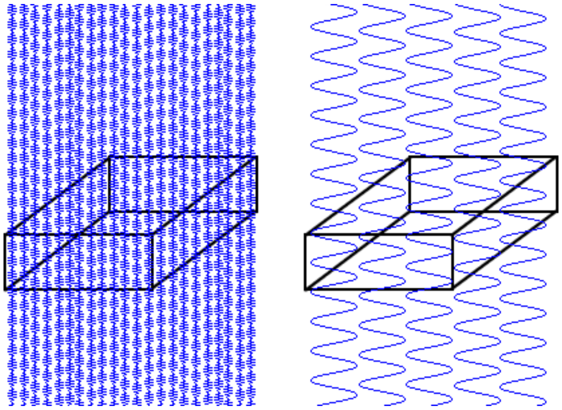
*H was derived from neon-helium laser equations. It is a roughly calculated value.

Where Δt would be the time passed in the sub-reality compared to our own reality. To be specific, it is how much time passes in the quantum realm if only 1 second passes in our own reality. The other boxed equations above describe the relative representative time to our time.

Something we must note here is that there is a significant jump between celestial and quantum scale, thus when referring to the radius of celestial objects to quantum, their portion in the natural order of the Universe where a gradual transition between two different scales does not exist and what it does is a jump between scales. The numeric values of $\mathbf{S}$ and $\mathbf{R}$ are meant to represent a jump in scale but applied in gradually progressing equations. This is not wrong or contradictory to the natural order of the Universe because when applying the radius values to this equation, the natural size of these objects will be the natural balance of how the Universe or Existence manufactured them with a jump on scale between reality realms or not.

Density of $\boldsymbol{\zeta}$

The density of $\boldsymbol{\zeta}$ is inversely proportional to its time variant. In a "natural" environment, the density of $\boldsymbol{\zeta}$ is dependent on the density of matter, which is dependent on the mass and its volume. Specifically, the density of **ζ** is directly dependent on its frequency, inversely dependent on its amplitude of which both are a product of superposition of vibrations from the quantum scale to the celestial scale from the center of the matter to the "distinguishable" surface of the matter (its radius in spheres). All superposition of vibrations on **ζ** contribute to its density, but even following this train of thought, **ζ** density is still very hard to quantify unless we use an initial frame of reference such as the Earth's surface **ζ** density being considered equal 1 ζ/m^3 and any other **ζ** density will be related to this reference point, since existence revolves around us ☺. Now, we must also understand that these density values with the unit of ζ/m^3 are actually relative values to our frame of reference hence why the unit of metres (m) is used, even though size too is relative depending the frame of reference.



To restate, the density of space-time (**ζ**) is relative thus to define it, all equations must be developed from our frame of reference. Thus considering several proportionate relations:

$$\rho_\zeta \propto \frac{1}{\tau}$$

$$\rho_\zeta \propto v_{system}$$

$$v_{system} \propto f_{systems\ core}$$

$$\rho_\zeta \propto Momentum = mv$$

$$\rho_\zeta \propto Kinectic\ Energy = \frac{1}{2}mv^2$$

The best equation to fit the density of space-time is in relation to a new relativity equation derived later in this chapter:

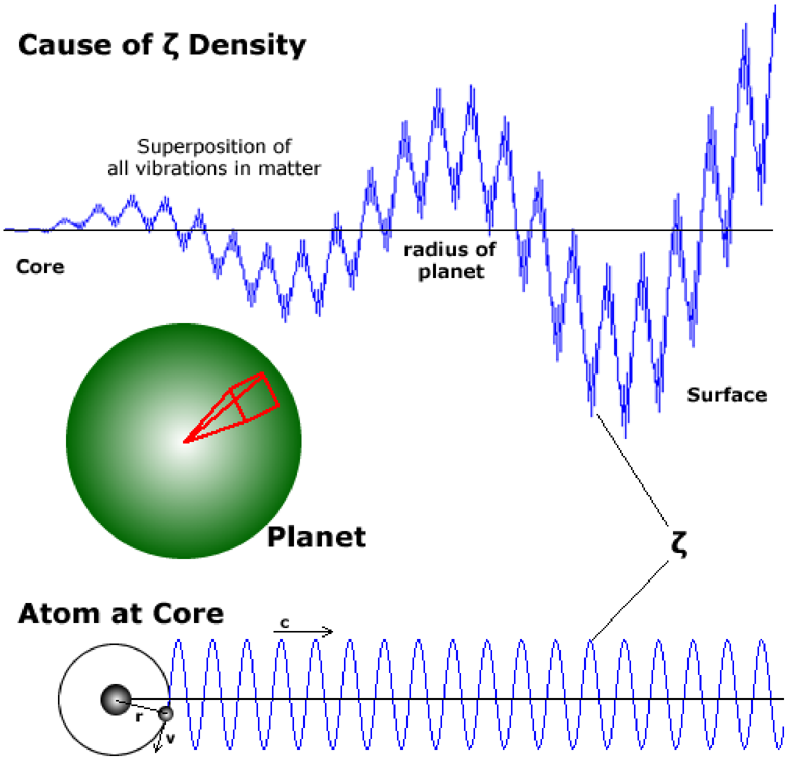
$$\rho_{\zeta\,quantum} = \frac{m_{celestial\,Earth}}{m_{quantum\,Earth}}\rho_{Earth} = S^2\rho_{\zeta\,Earth}$$

$$\rho_{\zeta\,quantum} = \rho_{\zeta\,Earth}\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2$$

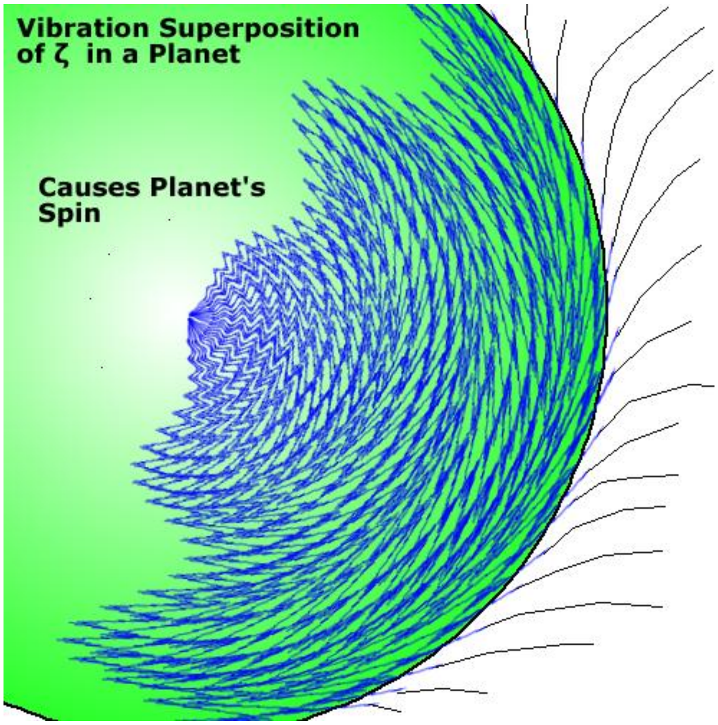
Considering the density of space-time at Earth’s surface:

$$\rho_{\zeta\,Earth} = 1\,{}^{\zeta}/_{m^3}$$

$$\rho_{\zeta\,quantum\,Earth} = S^2\rho_{\zeta\,Earth} = S^2\,{}^{\zeta}/_{m^3} = 3.164x10^{51}\,{}^{\zeta}/_{m^3}$$



The following diagram presents the concept of space-time amplification of vibration through a sphere resulting in a specific density of space-time at its surface and also representing the cause of spin of spherical objects.



The density coefficient of $\boldsymbol{\zeta}$ is the linear velocity of the vibration of $\boldsymbol{\zeta}$, where in its natural state it should always be a constant.

$$\boldsymbol{v_\zeta = 2\pi f A = 2\pi \mu_f \mu_A}$$

$\boldsymbol{v_\zeta} = \boldsymbol{linear\ velocity}\ (\boldsymbol{m/s})$
$\boldsymbol{f} = \boldsymbol{frequency}\ (\boldsymbol{cycle/s})$
$\boldsymbol{A} = \boldsymbol{amplitude}\ (\boldsymbol{m})$
$\boldsymbol{\mu_f\mu_A} = \boldsymbol{product\ of\ natural\ f}\ \&\ A\ \boldsymbol{functions}$

The actual appearance of $\boldsymbol{\zeta}$ is misleading and can lead to confusion on the path to understanding this type of density. What may appear to be long "lines" vibrating at a multitude of frequency, amplitude and wavelength ranges are the superposition summation of all similar frequencies and amplitudes that collectively contribute to the condensation of $\boldsymbol{\zeta}$ which directly contributes to the effect of gravity at all scales. The condensation of $\boldsymbol{\zeta}$ and its density is *infinitely homogenous*, which means it is like a sponge and always has substance as it is perceived by us even though we exist in it and it is classified by us as "nothing", and "nothing" is all spaces no matter how infinitely small the space is. In deep space, or nominal space, where $\boldsymbol{\zeta}$ is postulated to be less dense (or possibly more dense which has to be seen), the density of $\boldsymbol{\zeta}$ is less and our velocity, even basic movements enacting moments of acceleration, would be subject to jumps between **ζ** densities, having us, the observer, still perceive normalcy in our relation to the rest of the Universe even though the possibility of covering vast distances with little force could be attained. Also, our own bodies would be a great source of condensation and vibration for the low density **ζ** which again contributes to our perception of the Universe around us. Simply put, we will never see the distance in between the conceptual "tensors, strings or lines" of **ζ** (different densities of **ζ**), this is referred to as time variant since our own eyes will condense lines of **ζ** into them and what we don't see is postulated to be impossibly understandable (perception barrier). This all leads to a postulated conclusion and notion of homogenous **ζ** fabric containing relative properties to water, or any fluid, where it too is a fluidic substance that is extremely low density in direct relation to the density of water.

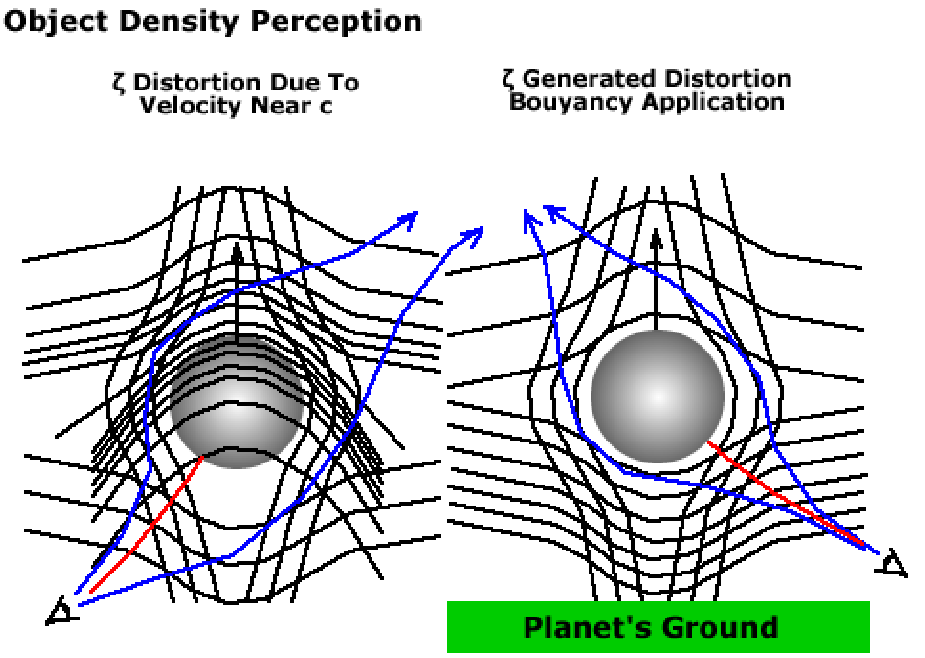
Relative ζ Density

The density of **ζ** at the quantum scale is relative to the density of **ζ** at the celestial scale.

> ***Density of ζ is always perceived by any observer moving at any velocity as constant, except in instances of acceleration which is the inertial effect of transition from one density of ζ to another.***

If there is any constant in the Universe it is the relative density of **ζ** as perceived by an observer in any other particular level of **ζ** density. The difference of densities is only perceived by another observer in another level of **ζ** density relative to the first observer and his level of **ζ** density.

What are the implications of this notion of relative **ζ** density? To answer that a few more things must be presented. First off is the supporting postulation that all objects distort **ζ** as they move through it. The higher the velocity of an object, the more it distorts the **ζ** fabric around it. Physical proof lines in the existence of magnetic fields, or distortion wakes. Distortion is amplified by having the object accelerate, which is due to a **Universal ζ *Rate of Permeation*** (stickiness) of objects of matter in which the objects rate of acceleration directly affects space density. Space permeates through all things celestial, quantum and sub-quantum and so on, and is consistently homogenous in its permeation, but when an object accelerates it distorts space even though space is permeating through that object and all its sub-constructs of all scales. This is because all matter in the state of acceleration pass through "static" **ζ** at a rate higher than the rate **ζ** can *adjust the matter* to its increased density due to the matter's motion. Matter will shrink at higher velocities relative to other objects of matter at slower velocities because all objects in motion, and especially in the state of transition between velocities which is called acceleration, will distort **ζ** and experience higher **ζ** density in front and lower density in back. Virtually the density change is the same in front and back as **ζ** eventually permeates through the matter and all its sub-constructs bring the matter to a size in which the density to matter and to velocities are the same as when it was travelling at slower velocities relative to itself. This process is not instant hence there is a **Universal *ζ Rate of Permeation*** through matter. The higher the acceleration the greater the **ζ** distortion until space-time distortion permeates through the object's entire dimensional sub constructs and eventually normalizes at its new relative level of **ζ** density. Now for objects travelling at very low acceleration rates and constantly increasing in velocity, **ζ** distortion is still happening especially as the object approaches velocities "close" to the speed of light (speed of **ζ** ripple propagation) and even beyond the relative velocity of light. Since distortion is immense at these enormous speeds, the object will experience an enormous increase **ζ** density which would contradict the postulation of relative densities as perceived by the observer. For this postulation to work, the size and mass of the object must relatively reduce as perceived by another stationary observer. The one thing that must be noted is that acceleration is the transition between relative densities, and velocities, in order to achieve perpetual Momentum through space, which **ζ** distortion will resist the acceleration of an object especially the greater the acceleration is.



Object Density Perception

ζ Distortion Due To Velocity Near c

ζ Generated Distortion Bouyancy Application

The blue lines represent the observer's major line of sight.
The red lines represent the observer's limited perception of the object.
In both cases the objects are almost invisible and would only appear infinitely small to the observer, as a quantum particle appears infinitely small to us.

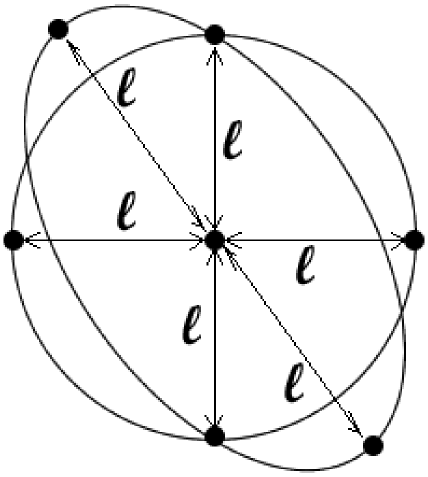
New Relativity Equations

The higher density of **ζ** effects the object's atomic, quantum, sub-quantum (etc…) structures by literally increasing the passage of time in those realms which translates into increased "stronger" forces in all those realms resulting in the object's reduction in mass and size relative to its previous "stationary" velocity. This notion does not necessarily contradict Einstein's General Relativity, but expands on it stating that relative $\mathbf{c}$ isn't constant and quantum $\mathbf{c}$ is much faster than celestial $\mathbf{c}$ since we must also consider difference in Δt between the two realities.

As symmetrically elegant as the Lorentz equations are, they have one significant problem, velocity of the object can be greater than $\mathbf{c}$ as seen by an observer from a stationary location and it has been postulated in this collective theory that an object travelling near $\mathbf{c}$ would appear to the stationary observer to be reduced in scale by a factor of $\mathbf{S} = \mathbf{c}^{e}$.

As perceived by us, the density of quantum matter is $\mathbf{S}$ times denser than celestial matter because the distance between "quantum" atoms in quantum matter is $\mathbf{S}$ times smaller in any direction, thus quantum density is

S times greater. I debated using the volume of the entire matter as the reducing factor, but the problem was then that mass would have to be perceived as equal both in quantum and celestial states as perceived from celestial reality. Matter isn't the perceived the same as seen from one reality because then the notion of matter and mass come into play. Again, what is matter and mass? It is self-defining at different scale intervals but in a way, matter doesn't really exist if it is self-defining ($d^1=d^0=1= d^n=0$). It's a bit complex, so consider this diagram:



ℓ reduces by a factor of S

As you notice, the dots represent atoms which *too* will reduce in size by S. The distance between every atom reduces by S. Now the key here is each atom's size also reduces by S, meaning they are no longer atoms as we perceive them to be, which directly affects our perception of matter-density, thus perceived mass-density increases by a simple factor of S. So instead of mass reducing by an expected factor of S^3, which would represent volume, it reduces by a factor of S^2. The following will show this:

$$\rho_q = S\rho_o$$

$$\frac{m_q}{\frac{4}{3}\pi r_q^3} = S\frac{m_o}{\frac{4}{3}\pi r_o^3}$$

$$\frac{m_q}{r_q^3} = S\frac{m_o}{r_o^3}$$

$$\frac{m_q}{\left(\frac{r_0}{S}\right)^3} = S\frac{m_o}{r_o^3}$$

$$m_q = m_o \frac{S\left(\frac{r_0}{S}\right)^3}{r_o^3}$$

$$m_q = m_o \frac{S}{S^3}$$

$$m_q = \frac{m_o}{S^2}$$

By factoring a velocity limiter where at the speed of light celestial matter becomes quantum matter due to ζ increase in density via distortion due to acceleration (and velocity) within the natural state of ζ positioning; in other words, the motion of matter in the concept of ζ "Ether" distorts the ζ "Ether". The following equation is derived:

$$m_q = \frac{m_o}{\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)^2}$$

This equation has direct relativity to the charge, which also supports this collective theory's premise that charge and weight (mass-gravity), due to the cause and effect of gravity, are one in the same due to the same effect which is derived from interactions found in wave theory.

$$9.23x10^{-47} coulumb \cong \frac{1 kilogram}{\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)^2}$$

where $v = c$

This also means that mass in kilograms can be represented in units of Coulombs:

$$S^2 C \cong 1kg\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)^2$$

A significant example is:

$$Jupiter_{quantum} = \frac{1.898x10^{27}kg}{(S)^2} = 1.56x10^{-19}kg \approx Electron\ charge = 1.6x10^{-19}C$$

This example basically states that numerically, a quantum Jupiter's mass closely matches an electron's quantum charge, again, numerically but still very significant.

Thus the following equations were deduced to be a more "realistic" representation of this paper's proposed laws of the Universe as it is observed from our perspective reality:

Charge/Weight/Mass Relation

$$\boldsymbol{q} \cong \frac{\boldsymbol{m}}{\left(\mathbf{1}+\boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)^{\mathbf{2}}} \qquad \mathbf{1}\boldsymbol{q} \cong \frac{(\boldsymbol{S}^{\mathbf{2}})\boldsymbol{kg}}{\left(\mathbf{1}+\boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)^{\mathbf{2}}}\boldsymbol{C}$$

where v=c, q=charge in coulombs

Mass Density

$$\boldsymbol{\rho}_{\boldsymbol{q}} = \boldsymbol{\rho}_{\boldsymbol{o}}\left(\mathbf{1}+\boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)$$

Mass

$$\boldsymbol{m}_{\boldsymbol{q}} = \frac{\boldsymbol{m}_{\boldsymbol{o}}}{\left(\mathbf{1}+\boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)^{\mathbf{2}}}$$

Size

$$\boldsymbol{l}_{\boldsymbol{q}} = \frac{\boldsymbol{l}_{\boldsymbol{o}}}{\left(\mathbf{1}+\boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)}$$

Δtime

$$\boldsymbol{\Delta t}_{\boldsymbol{q}} = \boldsymbol{\Delta t}_{\mathbf{o}}\left(\mathbf{1}+\frac{\boldsymbol{R}}{\left(\frac{\boldsymbol{l}_{\boldsymbol{o}}}{\left(\mathbf{1}+\boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)}\right)^{\mathbf{2}}}\right)$$

$$\boldsymbol{\Delta t}_{\boldsymbol{q}} = \boldsymbol{\Delta t}_{\boldsymbol{o}}\left(\mathbf{1}+\boldsymbol{c}_{\boldsymbol{o}}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)$$

Kinetic Energy

$$\mathbf{E}_{\boldsymbol{k}} = \frac{\mathbf{m}_{\boldsymbol{o}}\boldsymbol{v}^{\mathbf{2}}}{\mathbf{2}\left(\mathbf{1}+\boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)^{\mathbf{2}}}$$

The power of $\mathbf{3e}$ was derived by analyzing the constant $\mathbf{S}$ in relation to the speed of light with direct relation to spherical volume. It had a natural exponential relation conceptualized as the inner volume related to the object's velocity ($\mathbf{v}$) approached the containing volume related to the speed of light ($\mathbf{c}$):

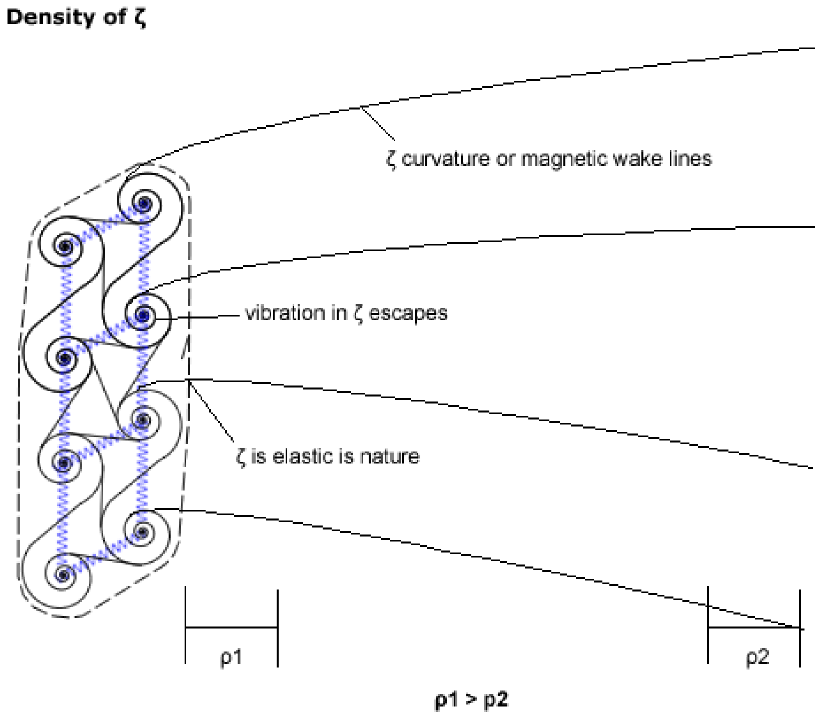
$$\frac{V_v}{V_c} = \frac{\frac{4}{3}\pi(v^e)^3}{\frac{4}{3}\pi(c^e)^3} = \frac{(v^e)^3}{(S)^3} = \frac{v^{3e}}{c^{3e}} = \left(\frac{v}{c}\right)^{3e} = \left(\frac{v}{c}\right)^{8.1546}$$

Once the basic derivation of the velocity limiter equation was formulated it was substituted into the relativistic equations and then compared to current knowledge of the fastest known non-quantum, non-atomic objects of which time-dilation is minimum or initially observable as it relates to the equation of $\mathbf{Q}$ (described later in this paper) and the redefined Newtonian Gravitational equation. The power of $\mathbf{3e}$ matched many known observations, though it is my belief that currently held observational data should be re-analyzed and/or experimentally redone to take into consideration aspects of this theory because it is my postulated belief that time-dilation, distortion of space-time, occurs during acceleration. For example, space-time distortion will occur every time a car moves from 0km/hr to any other velocity, including 1km/hr.

Referring to the newly submitted relativistic equations, $E=mc^2$ is only true because when particles collide the velocity of the particles slow down increasing the mass and releasing its kinetic energy along with the fact that all macro objects are comprised of an "infinite" quantity of atomic, sub-atomic, quantum and sub-quantum particles and so on. In total, all particles relate to $E=mc^2$ roughly accurate to only *one* reality scale down (one level down).

The following diagram represents how a substance interacts and composes space beyond its quantum scale. The ζ curvature (density) that all matter exerts on surrounding ζ, what we consider magnetic fields and the notion gravity waves (of varying intensities) visually assists in representing the density of ζ and also illustrates the fact the magnetic field, curvatures in

ζ, play a much more important role from the quantum/molecular scale to the celestial scale than what we might have conceptualized previously.



ζ density at quantum scale relative to celestial density of ζ.

Please note that the magnetic field lines here are straight, but in actuality they would be vibrating, or fluctuating, in relation to the linear velocity of the quantum systems. According to our scientific research has shown that the linear velocity of quantum atomic systems is very close to **c** (3.0x10^{8} m/s) or equal to **c**, which interestingly enough is the speed we perceive as associated with what we consider light. Does the linear velocity of quantum systems dictate the speed of light in the next reality, such as the celestial realm? We postulate that it dictates the natural speed of light as it can be *easily* perceived by an observer in our reality scale, an observer of our time and scale make-up, but that the speed of light, or ripples in **ζ**, have vastly different velocities depending on following equation as perceived by us in our current *realitivistic* perspective. This means that this equation of **c** is how we see **ζ** ripple velocity permeating from "smaller", time accelerated realties or realms, such as quantum light and sub-quantum light. In each reality, light is always **c**, but as seen from a containing reality, thus *quantum and especially sub-quantum **c** >> celestial **c***.

$$c = H\frac{f}{A}$$

Here A is dictated by the radius of the system generating the ripple in ζ, and H is the natural frequency and amplitude transform (since I don't believe it is an absolute constant yet). If the atomic system dictates the speed of light in our reality realm where an average atom's radius is 34.5pm (average of helium-neon radius used to generate red laser light) and roughly equals the amplitude of the light generated, this allows us to calculate H.

$$H = \frac{Ac}{f} = \frac{(3.45x10^{-10}m)(3.0x10^{8}m/s)}{(4.741x10^{14}/s)} = 2.183x10^{-16}m^{2}$$

Matter & Mass

Matter is the total sum of its sub-system constructs which are composed of all particles one to all realities lower than that in relation to scale and time matter object's current reality. It is considered palpable physical matter. This was mathematically defined previously utilizing the conceptual tool of dimension.

Mass is the relative measurable unit to define matter's inertia in a vacuum of space (or ζ fabric). It is beautifully described as:

$$\frac{m}{m_s} = \frac{a_s}{a}$$

For this equation to be useful, we need to know the standard mass (m_s) and acceleration (a_s). What is beautiful of this equation is it states that mass can only be derived relatively. It is my personal belief that this equation was the one that sparked Albert Einstein's imagination to formulate the Theory of Relativity.

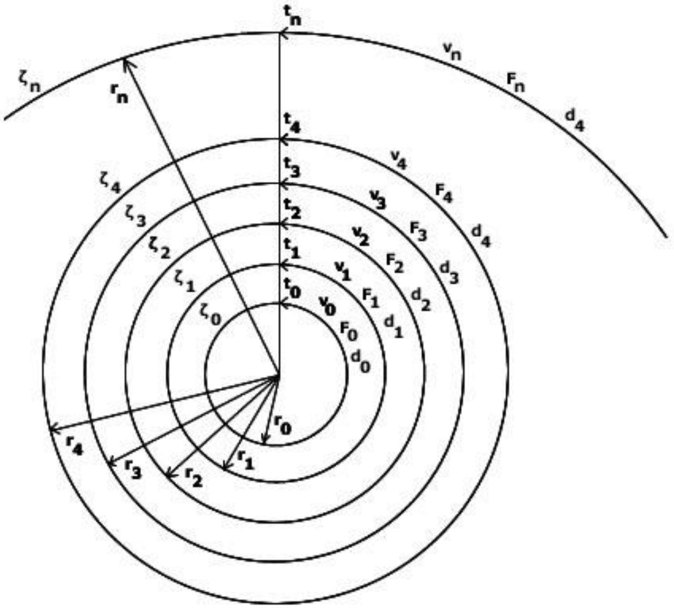
Using an example to define mass, let us say that there are two rocks in space of unknown mass, but we'd like to measure their mass. We have no other reference point but the two rocks. Now we also have two equivalent rockets able to produce an equal unknown force. Along with that, we also have the means to measure distance travelled and the passage of time. So we mount the rockets to their respective space rocks, point them in the same direction and ignite the rockets. It becomes obvious that one rock is travelling faster than the other. We take a measurement of the distance travelled after several minutes. Again, we notice that one rock travelled further than the other. This means that this rock has less "mass" than the other. This type of mass is considered *inertial mass*. Even with the distance measured and the time taken, we will never know the mass of any of the two rocks absolutely, but only as their mass relates to one another.

Now factoring in **ζ** density into the same example, in which each rock with equivalent rockets attached are ignited and travel through two different densities of **ζ**. Due to this particular density difference, both rocks travel the same distance and time. How is this possible? It is possible because inertia of all matter is related to the density of **ζ** it resides in, thus mass is also dependent on the density of **ζ** just as size is.

$$\frac{\boldsymbol{m_o}}{\boldsymbol{m_q}} = \frac{\boldsymbol{\rho_q}}{\boldsymbol{\rho_o}}$$

If the density of **ζ** is measurably much less than it's natural density, than an object travelling through it would travel virtually instantaneously through that very low dense **ζ** as it would be perceived from an observer in natural **ζ** density. The key is the application of **ζ** density manipulation or distortion in which to make all this theory applicable and useful it will be discussed later.

ζ Density/Matter/Light Chart



Matter

$\rho_{\zeta 0} > \rho_{\zeta 1} > \rho_{\zeta 2} > \rho_{\zeta 3} > \rho_{\zeta 4} > \ldots > \rho_{\zeta n}$

$t_0 = t_1 = t_2 = t_3 = t_4 = \ldots = t_n$

$F_0 = F_1 = F_2 = F_3 = F_4 = \ldots = F_n$

$v_0 < v_1 < v_2 < v_3 < v_4 < \ldots < v_n$

$d_0 < d_1 < d_2 < d_3 < d_4 < \ldots < d_n$

Light, Vibration Ripple (v=c)

$\rho_{\zeta 0} > \rho_{\zeta 1} > \rho_{\zeta 2} > \rho_{\zeta 3} > \rho_{\zeta 4} > \ldots > \rho_{\zeta n}$

$t_0 < t_1 < t_2 < t_3 < t_4 < \ldots < t_n$

$v_0 = v_1 = v_2 = v_3 = v_4 = \ldots = v_n$

$d_0 < d_1 < d_2 < d_3 < d_4 < \ldots < d_n$

The difference between the two (Matter vs. Light) is very important to note because literally everything relates to this chart. Essentially, a perceived object of matter will never reach the speed of light relative to itself or any other stationary reference object as seen from the accelerating object, because as the object reaches the speed of light, all relative points of reference will increase in size by a factor **S** and the relative passage of time of the surrounding reference points will become **c** (**Δt** at the value of **c**) times slower relative to the object which is accelerating, which will distort its perception of its initial reality. Also, space-time vibration caused by relative atomic systems will always be perceived to be travelling roughly at **c,** the current perception of the speed of light even though to a stationary observer, the object might surpass **c** many times over if the observer was able to see this.

Time Dilation

Time dilation on planets or objects of great **ζ** disturbance (vibration) producing vibrations of varying amplitudes which essentially are stretching **ζ** fabric and generating pockets of less density on the surface of the object permeating outward and exponentially decreasing in effect due to its vibration dispersion in all directions. Each planet has a surface vibration unique to itself. The larger the planet, the larger the superposition of **ζ** vibration resulting in greater stretching of **ζ** which further lowers the density of **ζ** around the surface of larger planets relative to a smaller planet’s surface **ζ** density. This does not mean that the further away from the planets that **ζ** density increases, though it doesn’t negate it too. Due to the natural state of the Universe as it is understood in relation to this entire theory, **ζ** density decreases the further away from the surface of a planet due to other pressures of other systems stretching on all of $\boldsymbol{\zeta}$.

Energy of ζ

The effect of time is directly proportional to the density of $\boldsymbol{\zeta}$, and the denser $\boldsymbol{\zeta}$ is the more energy it contains *relative* to our space-time reference.

$$\boldsymbol{E \propto \rho_\zeta \propto \frac{1}{\tau}}$$

$$\boldsymbol{E = k_E \rho_\zeta}$$

Time Relation to Charge

It is postulated that the denser $\boldsymbol{\zeta}$ is, the faster time is perceived. The less dense $\boldsymbol{\zeta}$ is, the slower time is perceived. Simply, passing through a dense collection of $\boldsymbol{\zeta}$ has the traveler pass through more $\boldsymbol{\zeta}$ than the traveler passing through a less dense collection of $\boldsymbol{\zeta}$. Thus the process of cutting through $\boldsymbol{\zeta}$ is perceived as time.

Here, we will utilize the concept of charged space-time tensors again, so with that said, time is the effect caused due to the compression of $\boldsymbol{\zeta}$ due to the amount in relative energy (vibration) in $\boldsymbol{\zeta}$. The greater the compression of $\boldsymbol{\zeta}$, the faster time is perceived by an observer in less dense $\boldsymbol{\zeta}$. The lesser the compression, the slower time is.

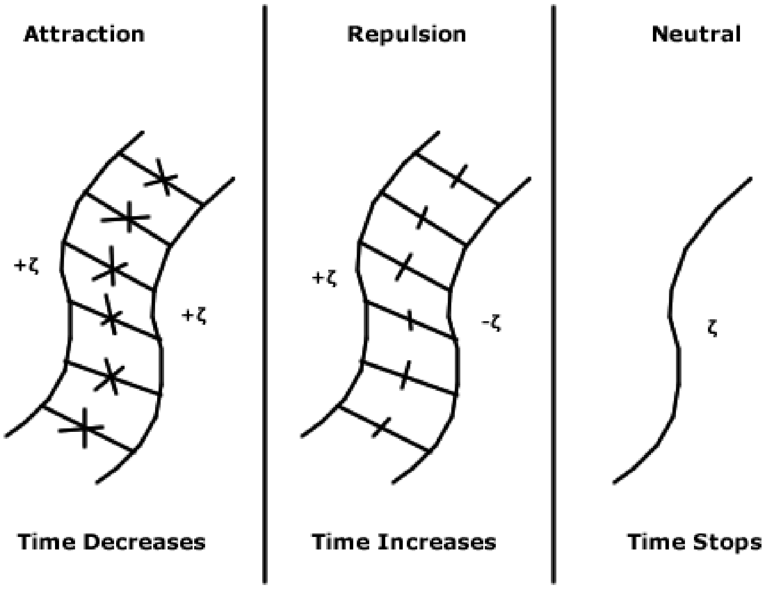
In a homogenous dimensional cluster where energy is very high along with compression where $\boldsymbol{\lambda \approx A \approx 0}$ the only time effect would be due to "charged" bonds of dimension and the distance they impose on each other.

It can be said, that the *concept of charge* contributes to the effect of time. Again, this theory challenges the concept of charge but for the sake of current perception, we will continue to use the concept of charge.

With regards to $\boldsymbol{\zeta}$ itself, time can be expressed as so:

- where $\boldsymbol{\zeta}$ is neutral, time is stopped
- where $\boldsymbol{\zeta}$ is charged, repulsion of same $\boldsymbol{\zeta}$ charged increases the passage of time.
- where $\boldsymbol{\zeta}$ is charged, attraction of same $\boldsymbol{\zeta}$ charged decreases the passage of time.

All this are just changes in the density of space-time ($\boldsymbol{\zeta}$).



Time is perceived as travelling "forward" and the majority of us experience this reality in which time travels forward. It can be stated that forward passage of time is *positive time*, which implies that there is a *negative time*. Since time is dependent on the existence of $\boldsymbol{\zeta}$ which is d^1, it can also be stated that without space, you can't have time. In the mathematical formula for reality, d is considered an unknown with no negative or positive known value, but the level of kd^0 states a negative equation containing d in $(-k_n d^0 d^n)$, which is an equation containing negative energy (or consciousness thus evilness?).

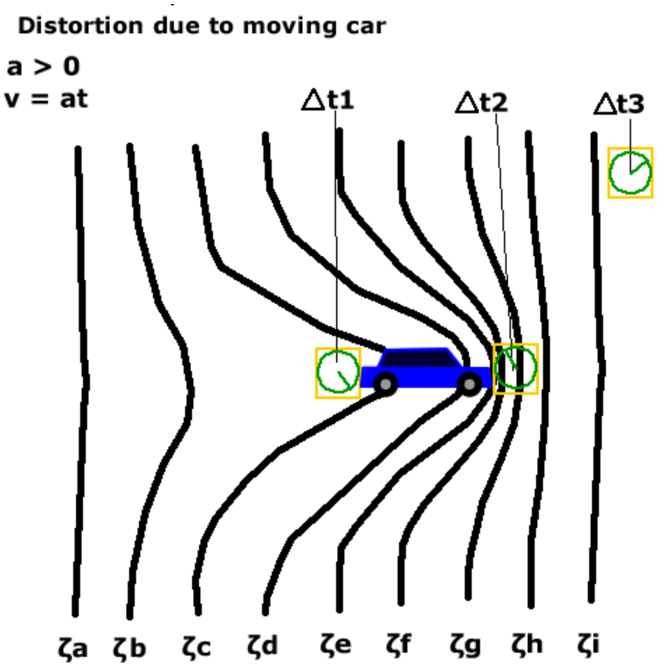
It is postulated that the direction of time, is directly related to negative and positive energy (or consciousness) respectively. In regards to consciousness, this somewhat makes sense since we do have the ability to envision ourselves in a prior moment.

Energy

Energy is an abstract notion, but essentially is the something which empowers movement. Kinetic energy is a wonderful example of energy because moving objects contain momentum. If made to collide with some other object it would transfer motion, or our perception of energy, to the other object and release some energy in the form of heat which is considered another form of energy. Kinetic energy is fascinating because it embodies a form of energy directly related to its velocity and its frame of reference. Now according to this theory, kinetic energy is an accumulation of relative $\boldsymbol{\zeta}$ densities by moving an object through it; cutting it. The postulate

$\boldsymbol{\zeta}$ density law states that all objects at any velocity would experience the same $\boldsymbol{\zeta}$ density except during acceleration. This “cutting” is $\boldsymbol{\zeta}$ *distortion* and can penetrate the natural shielding of matter, such as the frame of a car, and the observer which would begin to “speed up” time without them noticing. Energy is directly related to time thus the more energy the more time passes in higher energy system which has the same direct relation as it applies to $\boldsymbol{\zeta}$ density. In the case of driving a car, especially at fast speeds, this “speed up” of time becomes apparent with quicker reaction times. Once the car is stopped, especially after travelling for some hours on the highway, the phenomena of everything stationary appearing just slightly slower is experienced. This is attributed to an increase of energy in the dimensional structure of the observing driver due to passing through, distorting and compressing $\boldsymbol{\zeta}$ due to the speed of the car, especially during moments of acceleration.

Energy is a natural potential between different densities of space-time (ζ).



$$\boldsymbol{E = \frac{1}{2}mv^2 = k_\rho \rho_\zeta = \frac{k_\tau}{\tau}}$$

$k_\rho = density\ transform$
$k_\tau = tau\ transform$

These simple equations translate into the following equation:

$$\mathbf{E}_k = \frac{\mathbf{m}_o v^2}{2\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)^2}$$

Where the kinetic energy of a celestial object becomes equivalent to the kinetic energy of a quantum object as the object approaches the velocity of **c** as perceived by a stationary observer.

E=mc^2 Revised

The legendary equation derived by Einstein a century ago is wonderfully indicative of how matter translates into energy. Essentially, if matter were to be completely converted into energy this equation quantified how much energy released under our current understanding of energy. Now it's necessary to understand that this equation was not the first mass to energy equation ever derived. Kinetic energy equation has been around much longer and it was from this equation that Einstein derived **E=mc^2**.

Now the energy equation that this paper postulates and it's supporting mass-velocity equation appears to contradict **E=mc^2**. To explain we must envision that the higher the velocity, the smaller the particle and the smaller the mass, the smaller the relative kinetic energy. The bottom line is that this is correct. So if a particle travelling faster than **c** collides with another particle of similar size, the energy release would be very small? No. Why? The act of colliding quantum particles together reduces their velocity thus increasing the kinetic energy released as expressed by this equation.

$$\mathbf{E}_k = \frac{\mathbf{m}_o v^2}{2\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)^2}$$

In nature, collisions resulting in absolute annihilation are extremely rare or almost completely impossible. Even at the quantum scale, all collisions will *never* result in total annihilation. Why? It is essential to envisioning and to understand that any quantum collision is relative to a collision at the celestial scale. By this relation alone, it gives convincing proof that no collision in nature can result in complete annihilation, where complete annihilation means the destruction of the quantum, sub-quantum and so on particles in the matter colliding.

For example, envision two equivalent bullets hitting each other head-on at some very high bullet velocity. Both bullets would shatter, merge, twist and release matter fragments in random directions at high velocity even though the majority of the matter was decelerated almost completely upon impact. This type of collision would not result in the amount of energy as observed by a nuclear reaction. Why? Because both bullets, as a whole, collided with each other and their surface barrier which are produced by their molecular and elementary bonds absorb the impact and aided in shielding the destruction of many of the trillions of atoms and quantum particles in both bullets. Now here’s the difference, if the same type of collision were to be done directly to every atom in each colliding bullet, the amount of kinetic energy released would be much greater. Again, if the same type of collision were to be done directly to every atom’s quantum particles, the kinetic energy released would be even greater. This concept can go on infinitely to all sub-constructs of matter, and the smaller you go in direct collisions to all particles in each bullet the more kinetic energy is released which results in energy release much, much higher than $E=mc^2$. No matter what the collision, smaller particles will survive annihilation although the pre-existing cluster of those particles no longer exists. Now imagine if it were possible to completely annihilate all the matter in two bullets upon collision. The energy released would be so enormous that it would be like a pair of bullets colliding for each number of atomic, quantum, sub-quantum particles, etc, in both bullets. The energy released is incalculable and is postulated it would release enough energy to destroy existence itself. Again repeating my warning, we have to be very careful. If, and only if, this level of total annihilation were at all possible, it is my assumption that there is possibly an enormous Universal “conscious” incentive to police any possibility of this happening at a Universal scale.

Thus the revised mass-energy equation for any amount of matter is:

$$\boxed{\mathbf{E} = \frac{\mathbf{m}_o c^2}{2} \sum_{l=0}^{\infty} \left[1 + \frac{R l^2 S^2}{r_o^2} \right]^2}$$

where $l = 0$, the celestial scale relating to the quantum scale:

$$\mathbf{E} = \frac{\mathbf{m}_o c^2}{2} \sum_{l=0}^{0} \left[1 + \frac{R l^2 S^2}{r_o^2} \right]^2$$

$$\mathbf{E} = \frac{\mathbf{m}_o c^2}{2}$$

where *l* = 1, the quantum scale relating to the sub-quantum scale:

$$\mathbf{E} = \frac{\mathbf{m}_o c^2 R^2 S^4}{2 r_o^4}$$

where *l* = 2, the sub-quantum scale relating to the sub-sub-quantum scale:

$$\mathbf{E} = 8 \frac{\mathbf{m}_o c^2 R^2 S^4}{r_o^4}$$

The problem is that as *l* increases (reality *level*), the reality scale increment from celestial scale (0) to infinitesimally small quantum scales, the harder it is to tap into the kinetic energy of those particles in the form of collisions. Imagine the difficulty of achieving relative to fission reaction in an electron's sub-quantum structure. It is already difficult to achieve fission reactions at the atomic level. If an absolute nuclear reaction were possible at all values of *l*, it would mean that the *complete annihilation* of a single atom would be equal to all the energy in the Universe or existence.

$$\mathbf{E}_{\mathbf{celestial}} = \mathbf{E}_{\mathbf{qauntum}} = \mathbf{E}_{\mathbf{subquantum}} = \mathbf{E}_{\mathbf{Universe}} = \infty$$

This implies quite strongly that all energy in the Universe is contained in all levels of matter, thus the complete and absolute mass-energy of the most infinitesimal tiny particle measurable is equivalent to the energy contained in the infinite Universe. Taking a leap of faith here and postulating that the Universe is folded in on itself at both extreme ends of the reality scale. It is possible that every infinitesimal particle in existence in our reality contains a "copy" of our Universe of equivalent energy at different accelerated times directly dependent on its reality scale which is dependent on the relative velocity of the objects in each reality relative to each other, thus perceiving different levels of kinetic energy. There is something here that must be explored.

This all leads to the postulation that energy is the product of the difference between realities in regards to the $\Delta\mathbf{t}$ (at $\mathbf{c}$) and scale (S).

WARNING: I must stress again that achieving nuclear reactions is an immense danger and I personally believe we must stop all forms of induced nuclear reactions, because given the right set of variables and circumstances, a single nuclear reaction could achieve several levels of energy release (several levels of I in the use of the equation above) which could be enough energy to destroy our planet or our star system or even our galaxy.

Negative & Potential Energy

Negative energy in wave theory, as is presented in this theory, is presented as wave interference or superposition where the amplitude of the wave is diminished. Total Destructive Interference completely eliminates amplitude in the wave and also has a natural anomaly of not destroying two waves of same frequency with 180° phase difference, but making them "disappear" for an entire wavelength and other perpetuating wavelengths. They then reappear in their entirety several wavelengths over a distance which is the exact number of wavelengths that disappeared. It is a form of *potential energy* and partially the cause of what we consider energy/field barriers as described in quantum mechanics and, more tangibly, a cause of the concept of surface, the cause of forces (attraction and repulsion), which it contributes to the barrier between different substances.

Thus it is also postulated that the direct conversion of +E to –E is achieved through Total Destructive Interference (T.D.I.) of waves and that –E is Potential Energy and a contributor to the cause of energy barriers and perceived surfaces.

Freezing & Time

By moving a high energy observer into a low energy field of ζ basically means that the observer will radiate vibration energy (light and the cause of gravity) into low energy ζ to satisfy the Law of Equilibrium. The dimensional bonds (molecular, elemental and so on) will again be affected by expanding due to less vibration just as ice expands in volume, compared to water volume. This type of "freezing" will also make movement by the observer very difficult and could kill the observer if done too quickly. If done gradually, the observer might survive and if they do they will notice everything moving much faster than usual compared to their normal energy level.

Thought Moves Mountains

Given all that has been explored until this point, it can be stated that thought can literally move planets. Preposterous! Think about it. A single thought, either to move your hand or simulate a mental vision, causes physical charge potential differences in parts of your brain evoking movement of electrons. If electrons are quantum planets or asteroids at a difference in scale of S and difference in the passage of time of $\mathbf{c}$ from celestial planets and asteroids, then thought literally does move planets and asteroids, including those the size of mountains.

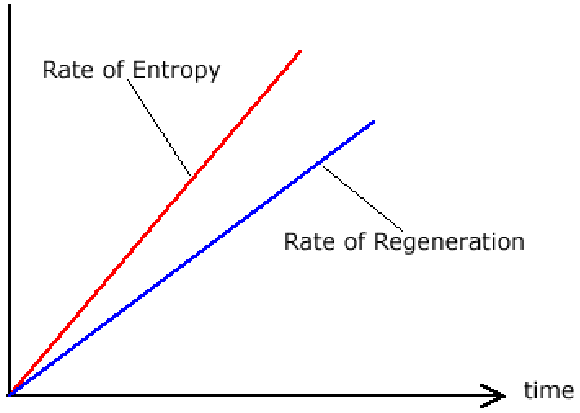
But can it move celestial sized planets? As humans, we can induce thought and move electrons (quantum sized planets and asteroids), but if we were a hypothetical conscious entity in which our perceivable Universe was actually its brain matter at a super-celestial scale, then a single thought from this entity would cause planets and asteroids to move possibly vast distances in order to possibly induce intelligent movement which for us might be perceived as random cosmological events. Taking the new theoretical relativity equations into perceptive, a single thought from a super-celestial entity of which our perceivable Universe is a part of would be viewed by us as a celestial event taking hundreds of years to complete surpassing our lifespan and appear completely unrelated to super-celestial conscious thought from an organism of which our perceivable Universe is part of. Essentially, cosmological "events" occur due to conscious thought from a living entity. This doesn't answer if we ourselves can move a planet the size of Mars with a thought, and I postulate that it is naturally difficult to do so, due to a factor yet unknown, but not impossible because if there is a will there is a way, thus our conscious awareness and knowledge of that way does not yet exist.

Establishing the concept that thought controls matter, what applications can be derived from this? Given sometime and study, will it be possible that thought can be organized to effect the quantum in such a way that an accumulative series of thought induced quantum events can lead to visible effects at the celestial scale? I postulate that it is possible.

9.0 Entropy, Aging & History

Aging is not caused by the passage of time though they are linked. Aging is caused by the rate of continuous sharing of energy, quantum and sub-quantum (and so on) interactions, such as collisions, over time resulting in the sharing of kinetic energy, via ζ through release and absorption and the range of difference in energy levels being shared. This rate of energy increase and decrease in a dimensional cluster effects all dimensional elements in it and is infinite, meaning any energy taken or applied at a rate greater than the dimensional cluster's natural absorption and release rates (*Universal Rate of Permeation*) or the application of large ranges of energy levels "damages" molecular bonds (such as in DNA molecules). "Damages" are accumulative over "time". Essentially, by applying ζ distortion at certain specific densities (via ζ vibration) will interfere and "damage" bonds causing physical aging.

In the case of a living creature, the rate of regeneration directly competes with the *Rate of Entropy* (rate of energy exchange). The name of this affect directly implies that entropy is directly related to aging. Here on Earth it is safe to assume the rate of regeneration in most living creatures is less than the Rate of Entropy on a global scale.



Now what must be understood is that entropy is actually the change in the atomic and quantum systems overtime, relative to an accelerated version of our Solar System and all the internal and foreign dynamics that accumulate change in the system over a time akin to thousands, millions or billions of years. Relatively, since atomic and quantum systems are actually very stable at a relatively accelerated Δt (time passage equal to $\mathbf{c}$), it directly tells us that our Solar System, if not directly affected by an external source, will exist virtually indefinitely at a greatly decelerated Δt. This thought then leads to a specific cause of entropy, of which there are many other causes. This cause is possibly due to intelligence (conscious) driven interference with a system's natural dynamics. This intelligence can come from various scales of reality. Humans are intelligent and conscious thus in their day-to-day activities, they continually traverse endless atomic, quantum and sub-quantum foreign systems which interact and change their bodies existing systems (exchange energy by joining, leaving or colliding) and cause entropy, the changing of energy types in our bodies. Even if a human wishes or limits their exposure to foreign systems by remaining still, foreign atomic, quantum and sub-quantum systems are constantly bombarding our planet and some pass directly through it, but all of which effects our physical bodies over time and our bodies accumulate these interactions in the form of change which is observed and classified as aging. Now, our bodies are natural creations and possibly evolved to cope with this planet's Rate of Entropy in their natural environment by regenerating, so it can be assumed that any living creature in their natural environment could regenerate and correct any damages caused by the Rate of Entropy unless their natural environment has changed to increase it's Rate of Entropy (exchange of energy) from its original state and beyond the natural level of living organic regeneration.

What on Earth causes this common global Rate of Entropy? Considering the global scale of this effect, the cause must also be global. It is postulated that major causes of entropy is the rotation of the Earth around the Sun, its distance from the Sun, the thickness of the atmosphere and the Earth's rate of spin. The rate of spin of the Earth and the distance from the Sun especially contribute to the Rate of Entropy because the bright side of the Earth and the dark side are hugely different in the density of $\boldsymbol{\zeta}$. The bright side is where light energy ($\boldsymbol{\zeta}$ vibration) from the Sun is abundant and the dark side is void of this energy. The rate of change from day temperatures to the night temperatures is at its period of about 12 hours and is a derivative effect of the absence of Sun vibrated $\boldsymbol{\zeta}$ on the dark-side of the Earth.

The question lingers, if evolution is absolutely correct, which personally I believe is somewhat correct or some derivative of it is true, then why haven't living creatures on Earth evolved to be faster than the Rate of

Entropy since this is their natural environment. It is postulated that all living creatures in their natural environments evolved to live the longest possible and have also evolved to handle most types of "damages" due to the Rate of Entropy. The lifetime of most living creatures on Earth is fairly short, at least as humans we feel it to be short and a good rule of thumb is to never ignore your feelings but to make sense of them.

Ancient Earth's Change

Let us postulate that life on Earth evolved to live forever, or much longer than it does now. On this hypothetical Earth, the Rate of Entropy is roughly the same as the rate of regeneration in living creatures including humans. Also on this hypothetical Earth, our rate of regeneration is the same as it is now, perhaps with a minor variance. This is completely hypothetical, but if all these factors were true, something global must have changed the Rate of Entropy on the planet. The most effective options are that the Earth's orbit moved closer to the Sun, or its spin increased, or perhaps its atmosphere diminished or all three. This would mean that this event in distant past is still having repercussions today by shortening our lifespan from a plausible longer, nominal life length.

What could cause such a change? One possibility is that the Earth was hit or pulled by an asteroid which not only caused global destruction, just under the amount of complete annihilation of life on Earth to account for our survival, but also blew away a portion of our atmosphere, increased or decreased the Earth's spin and knocked the Earth into a closer orbit to the Sun. Taking into consideration the destruction of the dinosaurs and the debris of reddish sediment found globally in the Earth's layers of strata, it is hypothesized that this event was what caused the demise of the dinosaurs. Considering the estimated mass of the Earth and its velocity around the Sun, the Earth must have been hit or pulled by something enormous or something extremely fast. Our top geologists have tried to find the best location of an asteroid hit that would match the level of destruction considered to *only* include the dinosaurs' destruction and they claim to have found it at the bottom of the Gulf of Mexico. The problem with this crater, though it's very large, is that it cannot account for the degradation of the Earth's orbit in this hypothesized scenario. With this hypothetical assumption in mind, the asteroid must have been much bigger than the one found. So it is postulated that this asteroid is still in the Earth's orbit and that it is in fact the Moon. The Moon's introduction to Earth caused the Rate of Entropy to increase on this planet and the life forms of this planet have still not evolved enough to compensate for this increase in the Rate of Entropy.

Now, with all this in mind, please note that there could have been many other celestial and even terrestrial causes to increase the Rate of Entropy and that not all occurred at the same time. Assuming that the Moon's introduction was the cause of ancient unimaginable destruction, it is possible that it is the cause of legends found all over the world, and specifically found in Sumer, regarding an ancient flood that destroyed everything. The Moon coming into very close orbit could have raised sea levels to flood the entire Earth in gravity induced continental tsunamis travelling around the Earth. If this were the case, then if North America was in winter season during this time, it is possible that this flooding water would have frozen after the initial tsunami forming an *instant* Ice Age which would explain the anomalous discoveries found by many geologists and archeologists. It's an interesting hypothetical theory arising from an initial study of entropy as it relates to this paper's theories. This is something I take great personal interest in and will be exploring at a later date, but for the meantime, let's calculate the year that the Moon introduced itself into Earth's orbit and skimmed the surface of the planet.

It is known that the Moon is slowly moving away from the Earth, which contradicts current gravitational notion of two massive bodies attracting each other, but according to this paper's theories, it falls inline with two similar objects repelling each other. In the case of the Moon, it might just be centripetal velocity of the Moon's orbit being greater than the attraction of gravity between Earth and the Moon. Assuming that this is the only case why the Moon is moving slowly away, than it partially validates that the Moon is a foreign introduction to Earth's orbit because its impact velocity contributed to its orbital velocity and this velocity is not a natural product of the early Solar System's birth. Currently, based on some documented observations, the Moon is moving away from Earth at 0.038m/year and currently is 376,288,000m away from Earth (surface-to-surface). So based solely on these numbers, we can calculate the hypothetical date of impact or skimming between the Earth and Moon.

$$Years\ Ago = \frac{376{,}288{,}000m}{0.038m/year} = 9.9\ billion\ years$$

The problem here is not as simple as this, because if the Moon impacted or skimmed the Earth, its introduction trajectory would have slingshot the Moon into a different direction once it skimmed the Earth or was captured into a very tight orbit, just like our exploratory satellites do with planets when travelling throughout the Solar System. It would then imply that some form of friction was experienced by the Moon in order for it to slow down into orbit. In the Earth-Moon's case, we'll assume the Moon was captured into a very tight orbit around the Earth, but due to its orbital velocity, currently 1022m/s (the Earth spins at 29783m/s), its orbit exponentially increased until it reached a more stable orbit. Thus by assuming that the Moon's orbital increase has always been a constant 0.038m/year is incorrect, and thus the Moon was not introduced into orbit around Earth 9.9 billions year ago, but much more recently. So when exactly? Well, the orbital increase exponentially has been decreasing, according to this hypothetical scenario and the postulate theory of gravitation throughout this paper, to calculate exactly when the Moon was introduced is very difficult. Trying some elementary calculations, assuming a 100000m initial distance (skimming the Earth's surface and atmosphere), the rate of orbital increase was much, much greater than 0.038m/year. So when did the Earth-Moon relationship start? Some very rough initial computer simulations state that the Moon introduced itself 3.3 billions of years ago which is 3 times sooner than a straight calculation of the current rate and much sooner than some currently accepted theorie, if and only if the initial distance from Earth was 100000m. This calculation is *extremely* rough. There is a possibility, in my logical mind, that the Moon was introduced much, much sooner than 3.3 billions years ago at an initial distance possibly far greater than the assumed 100000m. Several questions that keep lingering in my mind, but perhaps the most frightening question is, “does the Moon have family and are they going to pay a visit?” We can't answer this question because we don't know from where (direction) the Moon came from and, with no scientific certainty, know when it was introduced. Based solely on this paper's theory of relative realities, if the Moon was akin to an electron, then we can easily state that electrons usually travel as a flow between two potentials and rarely travel as individuals, so the likelihood that the Moon has counter parts travelling in its initial trajectory is highly possible.

I speculate and go as far as theorizing that the Moon introduced itself into Earth's orbit somewhere between 12,000 to 100,000 years ago. Its introduction caused global destruction by inducing Earth quakes, volcano eruptions, devastating atmospheric changes, but mostly by a gigantic global tsunami. It is also possible that the Moon brought with it asteroids which also collided with Earth causing even more destruction. The global tsunami would have scarred the Earth with a large layer of soot, perhaps the red material found in the Earth's strata found all over the world. In the cold regions of Earth, a global tsunami would have frozen forming an instant ice age. If we take ice ages as an indication of global tsunamis, then the fact that we have had multiple ice ages might be an indication that global tsunamis occur regularly possibly due to celestial events, such as or equal to the introduction of the Moon.

I'll go even further at this point with my speculation regarding the Moon's introduction into Earth's orbit, which if I haven't offended classical theorists until now, I most certainly will now. I further speculate that the introduction of the Moon was the event that killed off the dinosaurs and that it happened 12,000 to 100,000 years ago and not millions of years ago. It is possible that many layers of earth strata which appear to be millions of years old because they appear deeper in the Earth are actually due to natural progression of the Rate of Entropy on the Earth at the quantum scale, such as isotopic decay, coupled with the introduction of the Moon and the layers of soot of a gigantic global tsunami, possibly more than one tsunami, left behind and possibly multiple asteroid collisions again due to the Moon's introduction. But I can't stop there. The induction of Moon also ripped away a portion of our atmosphere and changed our orbit and planetary spin velocity leaving effects that we are still experiencing today at a global scale and of course it would be impossible to have even noticed these effects, which are in the form of an increase in the Rate of Entropy resulting in an increase in the rate of physical aging. Personally, I find this speculation to be a great possibility and of great interest which we must take dreadfully into consideration regarding our future survival.

10.0 Conceptual Relativity

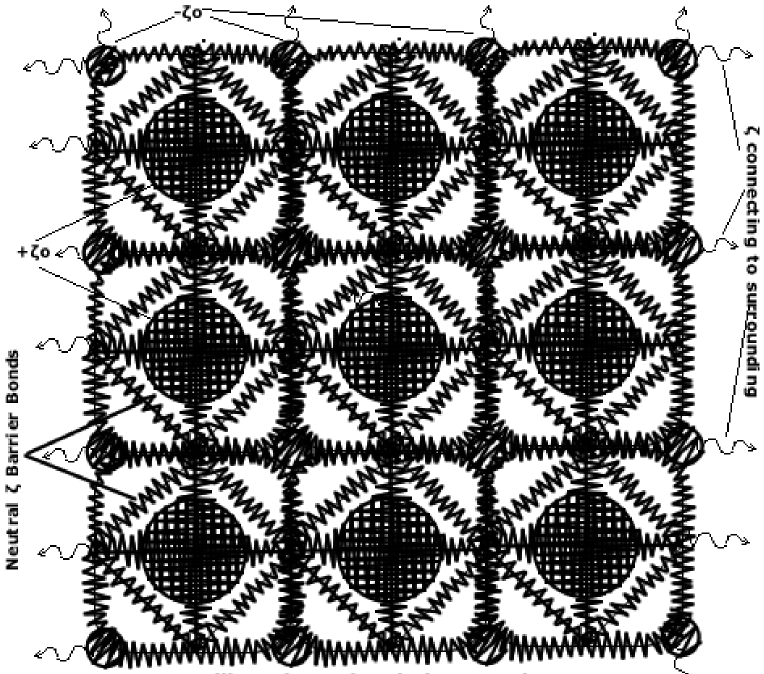
This chapter is a collection of notes I find significant to the underlining theory of this paper. These notes touch on that realities are relative, just as velocity and time are relative, thus everything is a scalar relative to $\boldsymbol{\zeta}$ and its properties. The reality of a molecule and its environment at the molecular, atomic and quantum scale is relative to our planet, our star system and its environment at the celestial scale. The best way to understand our Universe is to look at scalar representation of it such as a bucket of water. All the properties, characteristics and effects are contained in that bucket of water, just at a smaller scale displaced by an accelerated passage of time equal or close to the value of **c**.

Viscosity

The effect of viscosity is due to high energy $\boldsymbol{\zeta}$, thus it can be considered "Viscosity Space Tensors" ($\boldsymbol{\zeta}_v$), essentially the bonded "space-time" between atoms or molecules. They have the same effect at two very different scales with the other difference being that we are not in the bucket but observing it from the outside at an extreme scale and time difference in comparison to a water molecule.

Freezing

The perception of freezing is due to the viscosity tensors losing vibration energy and having $\boldsymbol{\zeta}_v$ increase its λ, decrease its frequency and amplitude (space-time density increases). This increase of λ would increase the volume of frozen substance such as water. However the $\boldsymbol{\zeta}_v$ is still bonded to the molecules, atoms, nuclei and subatomic particles at their "natural" frequency (vibration energy), only the space between the molecules and then the atomic nuclei, which is a large dimensional cluster, would "straighten" because it would be affected first by loss of energy. Freezing has very *little* frequency interference allowing it to vibrate at its "natural" frequency which is uniformly distributed through the substance.



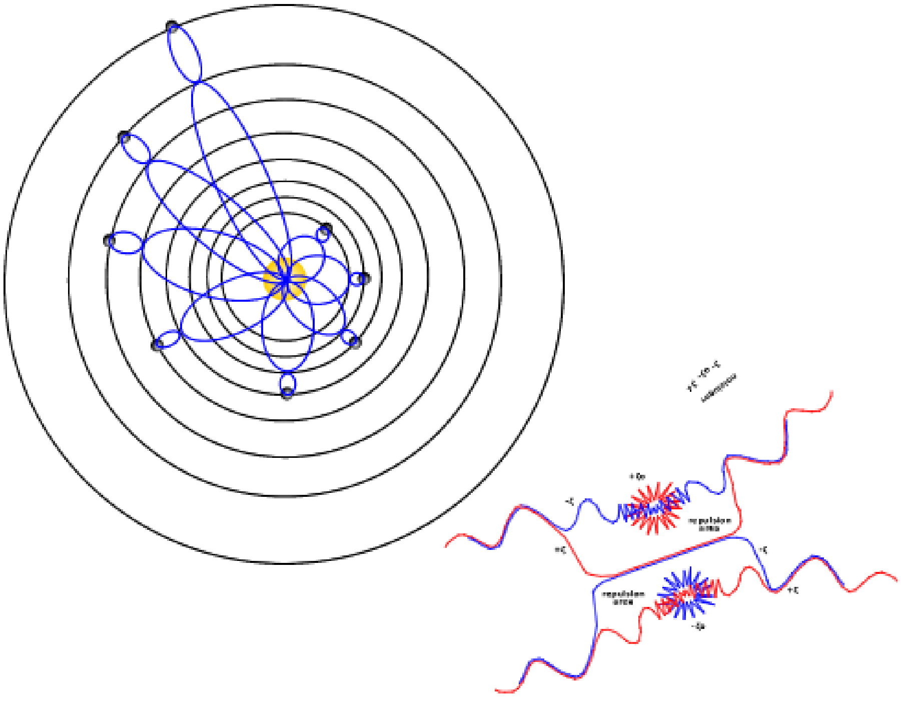
Crystalline Dimensional Cluster w/ Low Energy
No Frequency Interference

The 2D (2-axis) representation of a "frozen" object is that of a uniform crystalline object in a reality representation foreign to our reality, but relative, with multiple charged bonds per ζ_o. The ζ extending out from it, is the representation of how matter connects to its environment and space-time itself and are the transmission lines of energy and frequency although it is not limited to only these extending ζ tensors. The reason also why the positive nuclei and the negative electron do not collide is due to this neutral barrier or ζ formed from charge bonds (ex. diagram of d^2 charge bond) which in current physics is considered an energy barrier. If further analyzed, this barrier is a density region of space-time emitted by the core of the atom that is less "dense" then the density of space-time emitted by the surrounding electrons, thus the electrons are floating on this energy barrier and subsequent barriers depending the size of the electron particles. Yes, electrons have different sizes and matter-densities. This is akin to why Earth is attracted closer and repelled less by the Sun than Jupiter.

Separation of Different Substances

The natural separation of different substances, or dimensional clusters, (ex. water and oil don't mix) is because both their atoms and core nuclei, naturally vibrate at different frequencies and have wave phase differences which would cause *wave interference* in the connecting ζ between both substances which loosens the connection between different substances resulting in a natural distinction between substances. This is all caused because the core of each substance's atom is different, thus have different numbers of objects orbiting their cores which is directly related to the concept of Neutrality which is touched on in a later chapter. Essentially, some substances (their atoms and molecules) are less neutral than others. This directly contributes in the cause of surface barriers which is exactly what energy barriers are in the atomic structure. Some substances vibrate at different frequencies but their wave phase difference is similar, allowing both materials to homogenously mix together at the molecular level.

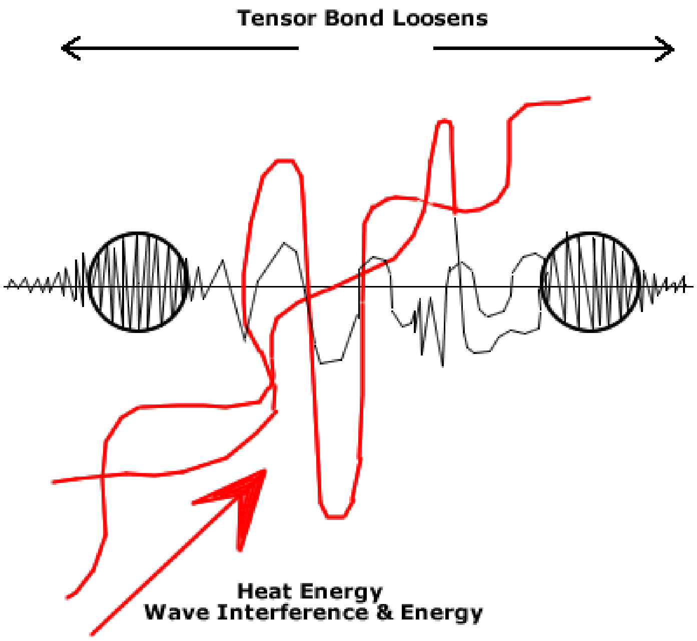
ζ Density Barriers in a System



Star/planetoid "magnetic" field interaction bonding

Melting

Melting is due to the addition of heat energy (vibration) to an object which interferes with the wave amplitude and frequency in viscosity tensors ζ_v between the atoms of molecules (the space between bonds) and permeates this interference frequency down to the subatomic level loosening the nuclei's bond with the viscosity tensor (ζ_v) and also makes the nuclei and its subatomic structure vibrate erratically which is due to the interfering frequency and added energy which increases its amplitude. All this contributes to the de-cohesiveness of matter which is the effect of melting.



The loosening of any bonds can be achieved by wave interference (via **ζ**). Total Destructive Interference would nullify **ζ** vibration for as long as the generation of T.D.I. is maintained and would not add excess "heat" energy. Essentially, and repeating what was said prior, vibration of space-time changes the density of the space-time, thus loosening of bonds is achieved by changing the space-time density between the bonded points (atoms or molecules).

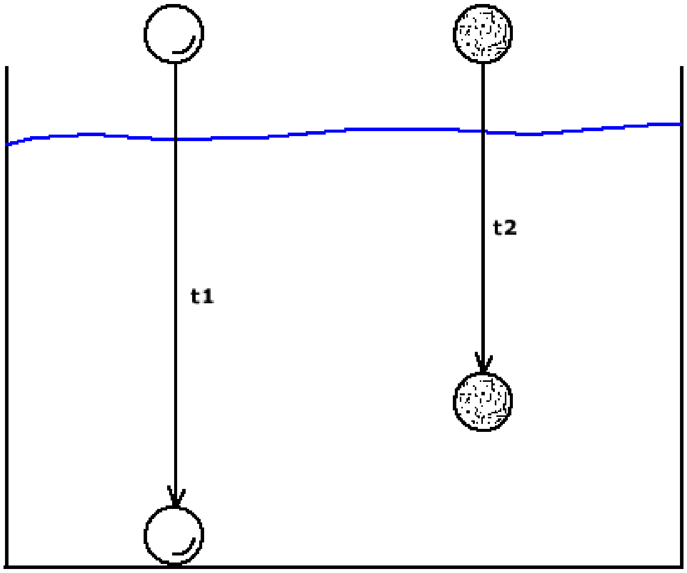
Plasma

The state of gas and plasma are just further along the process of de-cohesiveness of matter due to interfering frequency plus the amplitude of extra added energy via the medium of space-time (**ζ**) in the form of intense space-time density disturbances. In the state of plasma, de-cohesiveness has reached such levels that the bonds holding the atom's (nuclei and orbiting quantum particles) together are themselves loosened.

Water Example

The following example illustrates that surfaces are a product of **ζ** distortion, bending space-time into wake lines (magnetic fields) that are tangible, by sub-atomic particles that are orbiting the atom's core (nuclei). Not only do energy barriers in an atom play a part of a substance's surface, but so does the magnetic fields as it is already known. The number of orbiting sub-atomic particles around the core nuclei plays a huge part in the "texture" of the magnetic field (distortion field). It generates around the atom. Again, this touches in the notion of Neutrality. Essentially, the more particles orbiting the atom's core the more "rigid" the distortion makes lines (magnetic field) thus the more luster the substance has. Now what's significant about this is that it plays an enormous part in fluid dynamics. For example, rarely would you develop a plane coated in a course material. Planes need to be aero dynamic thus the surface of the plane must be smooth and lustrous. Do you see the connection between the atomic scale and the celestial scale? If not, let me explain in the following example.

You have two spheres of the same mass and volume but one is "shinny" (has higher luster) and the other is rough (a very fine rough surface). Which one will reach the bottom of a bucket of water first if both are dropped at the same time?



t1 < t2

The answer is the "shinny" sphere. This concept is part of fluid dynamics. It's well known that smooth surfaces have less friction than rough surfaces. What is less known is why and again the reason is due to the cause of luster of which metals are usually naturally more lustrous than other substances.

Why is this significant? Because these two spheres travelled across relatively sized clusters of "star-system", even though to our *perception* they were just water molecules, as they dropped to the bottom of the bucket which directly illustrates that outer space, though it's hugely less dense than matter. It also ruled by the laws of fluid dynamics at a vastly enormous scale. Thus in our future, when and if we build interstellar space-craft, fluid dynamics must be factored in.

Luster

Luster is due to the spin of atomic or quantum structures of a substance. At the quantum level, this spin is attributed to charged particles which we know to produce a magnetic field as it moves through $\boldsymbol{\zeta}$ (distorting it). Luster is attributed due to the distortion of $\boldsymbol{\zeta}$ near the surface of the substance. The more quantum structures that spin and distort through $\boldsymbol{\zeta}$ near the surface, the "smoother" and the more luster the substance has. This is because, the continuous distortion of $\boldsymbol{\zeta}$ does not allow $\boldsymbol{\zeta}$ to settle and "stick" to the internal quantum structures more tightly, essentially generating and dividing two distinct space-time densities. Polished substances can have a similar effect compared to substances that have a natural luster.

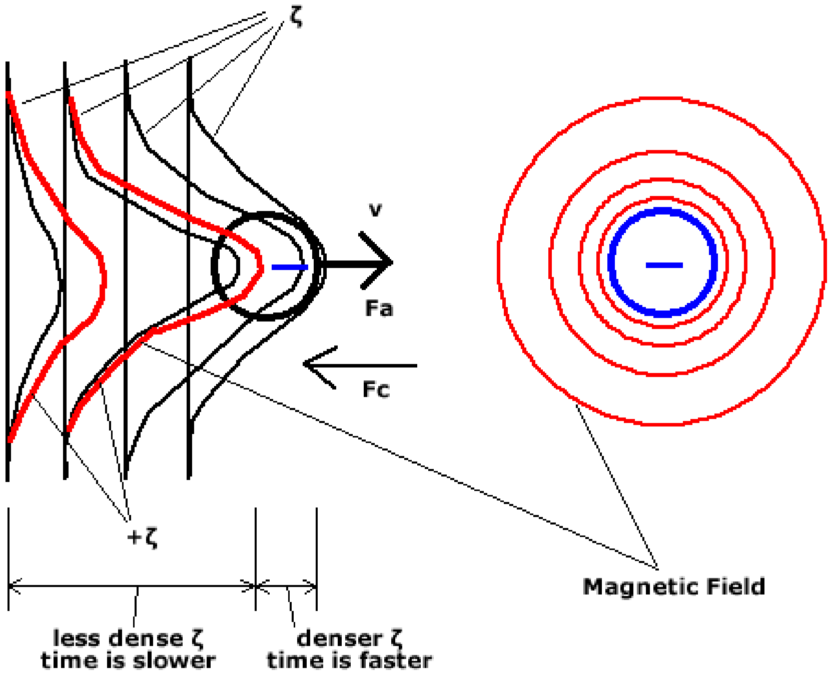
11.0 Magnetism

A charged particle, basically a charged dimensional cluster, cutting (distorting) of space tensor ***ζ,*** which passes through the object as it would pass through a neutral object, it attracts the oppositely "charged" ***ζ*** and bends plus stretches ***ζ***, like all matter would, except it has an extra pull due to its "charge". The "cutting" (distortion) of ***ζ*** bends first ***ζ*** then breaks and then stretches ***ζ*** as the charged object passes through. All this creates a ripple in ***ζ*** which we see as a magnetic wave field.

Magnetic Spin

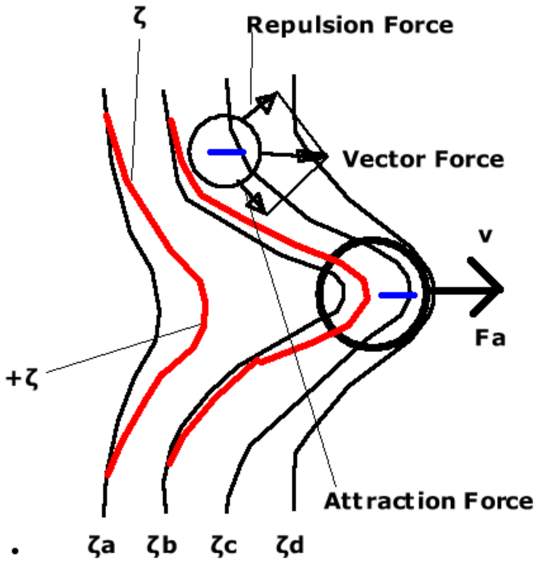
The perception of spin on magnetic fields is due to the "charges" as it cuts (distorts) ***ζ***, bending and separating its two "charged" halves (pocket of low density) which would repulse or attract other "charged" particles in the same or opposite direction as the "charged" particle that's bending it. Magnetic field direction is a human convention to determine the direction that "charged" particles would move in a magnetic field.

Therefore any object in motion distorts and bends space-time thus electric current also distorts and bends space-time as it moves in a direction.



This image above shows the distortion (bending) of $\boldsymbol{\zeta}$ and the splitting of the "charged" halves as the "charged" object, such as an electron, passes and cuts through $\boldsymbol{\zeta}$. ***Again, "charge" is not an actuality but a concept we have applied to density crests of a space-time vibration wave or space-time distortion where one side is denser than the other.***

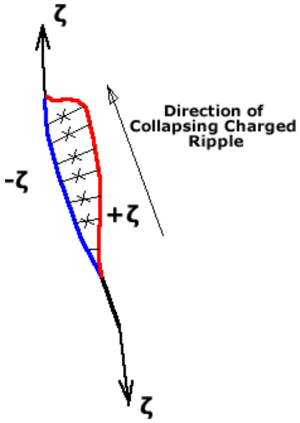
Note that $\boldsymbol{\zeta}$ passes through any object, "charged" or "neutral" even while it's in motion at a constant velocity or in acceleration. $\boldsymbol{\zeta}$ of less energy passes through higher energy $\boldsymbol{\zeta}$ more readily, but due to vibration sharing, the less energy $\boldsymbol{\zeta}$ begin to vibrate at the same frequency and "stick" by "tangling" (superposition) itself to the much higher frequency $\boldsymbol{\zeta}$ by its own vibration in dense dimensional clusters (viscosity tensors, electrons, nuclei, etc…), which is part of the effect we know as gravity. $\boldsymbol{\zeta}$ field lines break (experience low space-time density pockets) as the object passes through it but quickly reconnects after passing through an obstruction. Once they reconnects, they again exert force against acceleration motion (Inertia), which is much higher against acceleration. At low speeds where $\mathbf{v} << \mathbf{c}$ and $\mathbf{a} = \mathbf{0}$, $\boldsymbol{\zeta}$ force against motion is very small ($\mathbf{F_c} \approx \mathbf{0}$). This force against motion is really just force due to distortion, bending, stretching and cutting through $\boldsymbol{\zeta}$, especially if it has had plenty of time to vibrate at the object's natural frequency while it was at rest. This opposing force is what we perceive as Inertia. This subject will be covered later in more depth.



In the image above, this +**ζ** distortion wake will hit the smaller stationary "negative" object as the larger "negative" object zooms by. The resulting vector force on the smaller object due to the repulsion and attraction of the same and opposite "charged" **ζ** is in the same direction as the velocity of the larger object. Another, more actual perspective, the distortion wave crest caused by the 1st moving object hits the 2nd stationary object and knocks it into motion in the same direction. This interaction results in our perception of electric flow in electric conductors (wires).

Magnetic Field Ripple

As the split **ζ** collapses turning back into a whole neutral **ζ**, it ripples collapsing throughout the entire **ζ** chain link (**ζ** attached end-to-end) and goes on forever or until the ripple is cancelled due to "interfering" energy (wave interference). As it travels, it gets weaker due to the energy of the ripple being dissipated due to its medium (**ζ**) being stretched and interacting with other dimensional clusters and other interfering energy along the same medium.

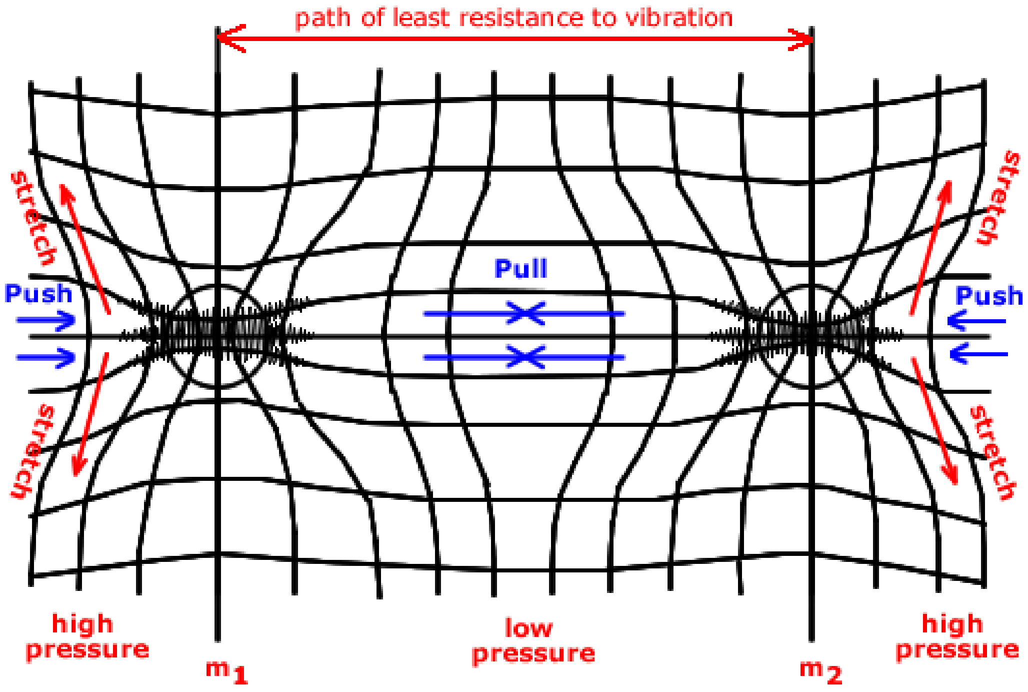


"Charged" ripples in **ζ** are possible due to +**ζ** being "thicker" or "denser" which vibrates at a different frequency than the "thinner" or "less dense" –**ζ**. ($f_{-\zeta} < f_{+\zeta}$). Essentially, and to repeat it again, these thicker and thinner concepts of space-time are the characteristics of the physical wave crest in vibration in regards to space-time density (**ζ**).

12.0 Gravity, Charge & Potential

As mentioned before, gravity is the effect of the high energy dimensional clusters vibrating nominal or lower energy **ζ** between two or more objects which condenses, makes λ smaller, increases amplitude and pulls both objects closer. At the same time, the **ζ** surrounding the objects are being stretched due to interfering frequencies and other objects at different angles which contributes to a push.

Gravity is a Pull or Push (Attraction or Repulsion) Between Objects of Matter and a Pull or Push from the Stretching of Surrounding Space-Time (ζ Density) Caused by an Object's Vibration of Space-Time Where the Path of Attraction or Repulsion Follows the Path of Least Resistance to Vibration



Path of Light

Why don't we see this distortion in space-time? The answer is simple, because light travels along ζ. If ζ is bending, stretched or compressed, what we perceive as a photon (a high energy vibration ripple) travels along ζ through its twists and turns (refracting through varying level of space-time density), just like a light travels through fiber optics wire. There is some refraction as light travels through decreasing or increasing densities of ζ but for the most part, at least here on Earth, we don't see refraction of light through ζ permeating at the Earth's surface because on the Earth's surface, the density of ζ is fairly uniform.

Cause

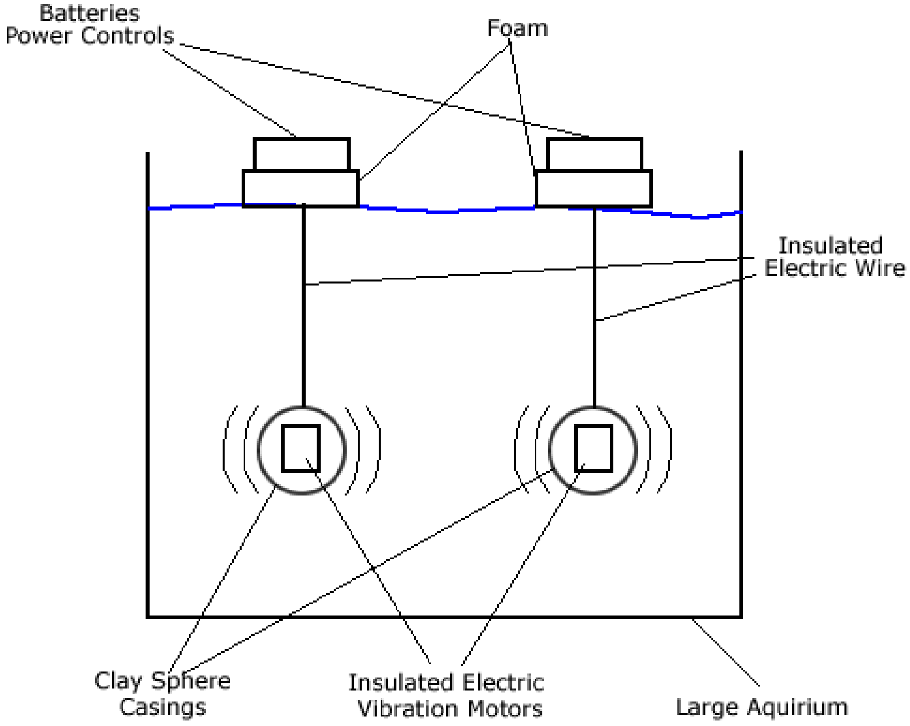
The cause of the effect of gravity is due to vibration in ζ. All matter vibrates ζ, thus all matter produces what we have incorrectly labeled electromagnetic waves (light); both visible and invisible at every frequency and amplitude produced by any body of matter. Matter of any size is a light source and light, effectively condenses ζ bringing two light sources (matter) closer together.

Light Causes Gravity

Water Gravity Vibration Experiment

To simulate the real gravitational effect, this can be done by using a unique experiment which I like to call *W.G.V. experiment* for short.

Water Gravity Vibration Experiment



Expected theoretical results*:

Electric Power Applied	*Frequency*	*Resulting Action*	*Current Perception*
$P_1 = P_2$	$f_1 = f_2$	*spheres repel*	*same charge repel;* *energy barrier;* *surface barrier;* *anti-gravity; buoyancy*
$P_1 > P_2$	$f_1 > f_2$	*spheres attract, moves closer*	*relative buoyancy;* *perpetual orbital effect*
$P_1 >> P_2$	$f_1 >> f_2$	*spheres collide*	*Static charge attraction;* *gravity*
$P_1 >> 0$ $P_1 >> 0$	$f_1 = f_2$ $f_1 >> 0$ $f_2 >> 0$	*spheres repel at an increased acceleration intensity*	*high frequency matter interact with each other with much more intensity*

* These results were the product of thought experiments

Natural Frequencies & Amplitude

All objects, celestial, quantum, or sub quantum produce a natural vibration with a naturally generated frequency and amplitude due to its underlining celestial, atomic, quantum, sub-quantum, sub-sub-quantum and so on construct.

The natural frequency of an object is directly proportional to its density and inversely proportional to the square root of its radius. It is also directly proportional to the concept of Neutrality. The less "neutral" an object is, meaning an imbalance in the quantity of what we currently consider "positive" and "negative" particles in its substructure, or what we consider quantum structure. Here the concept of quantum is miss leading and is best described as R_c-1, which is currently reality subtract 1. However this notion, though it's the core of this entire theory, can be complex to conceptualize, especially when we are focusing on the quantum realm and referring to its substructure which could be written as R_q-1.

The inverse relation of natural frequency is the equation for natural amplitude.

Universal Natural Frequency & Amplitude

$$\boldsymbol{f} = \frac{\boldsymbol{3\mu\rho N}}{\boldsymbol{4\pi r^3}}$$

$$\boldsymbol{A} = \frac{\boldsymbol{4\pi r^3}}{\boldsymbol{3\mu\rho N}}$$

where u = natural frequency/amplitude constants

Natural Linear Velocity

The natural linear velocity of all natural objects is **2π**. It is the product of its natural frequency and amplitude.

$$\boldsymbol{v = 2\pi f r = 2\pi}, \qquad \boldsymbol{but\ r = A}$$

$$\boldsymbol{v = 2\pi f A = 2\pi}$$

N

The equation N is a rudimentary representation of the notion of neutrality of an object. All objects in a natural state are considered neutral, even though some objects leak more ζ vibration than others. N is related to an object's mass.

N = Neutrality Magnitude (Naturally ≅ 1)
The less neutral at its quantum or sub-construct scale, the more "mass" the object "appears" to have.

N Equation

$$\boldsymbol{N = \left(1 + \frac{R}{r^2}\right)\left(2\frac{p}{n} - \frac{n}{p}\right)}$$

$$\boldsymbol{N = \left(1 + \frac{R}{r^2}\right)\left(2\frac{m_{core}}{\sum_0^n m_n} - \frac{\sum_0^n m_n}{m_{core}}\right)}$$

r = object radius
p = quantity of "positive" quantum objects in object
n = quantity of "negative" quantum objects in object

Note: The quantities of p and n are just objects of different sizes and densities that interact with each other abiding by the laws of wave theory.

Neutrality comparison between two objects can be represented as:

$$\boldsymbol{N = \left(1 + \frac{R}{r_1 r_2}\right)\left(2\frac{m_{1core}}{\sum_0^{n_2} m_{2n}} - \frac{\sum_0^{n_1} m_{1n}}{m_{2core}}\right)}$$

This equation is a good presentation, though rough, of the how different atoms are less neutral *to each other* except when both atoms are equal in everyway.

New Law of Universal Gravitation and Charge

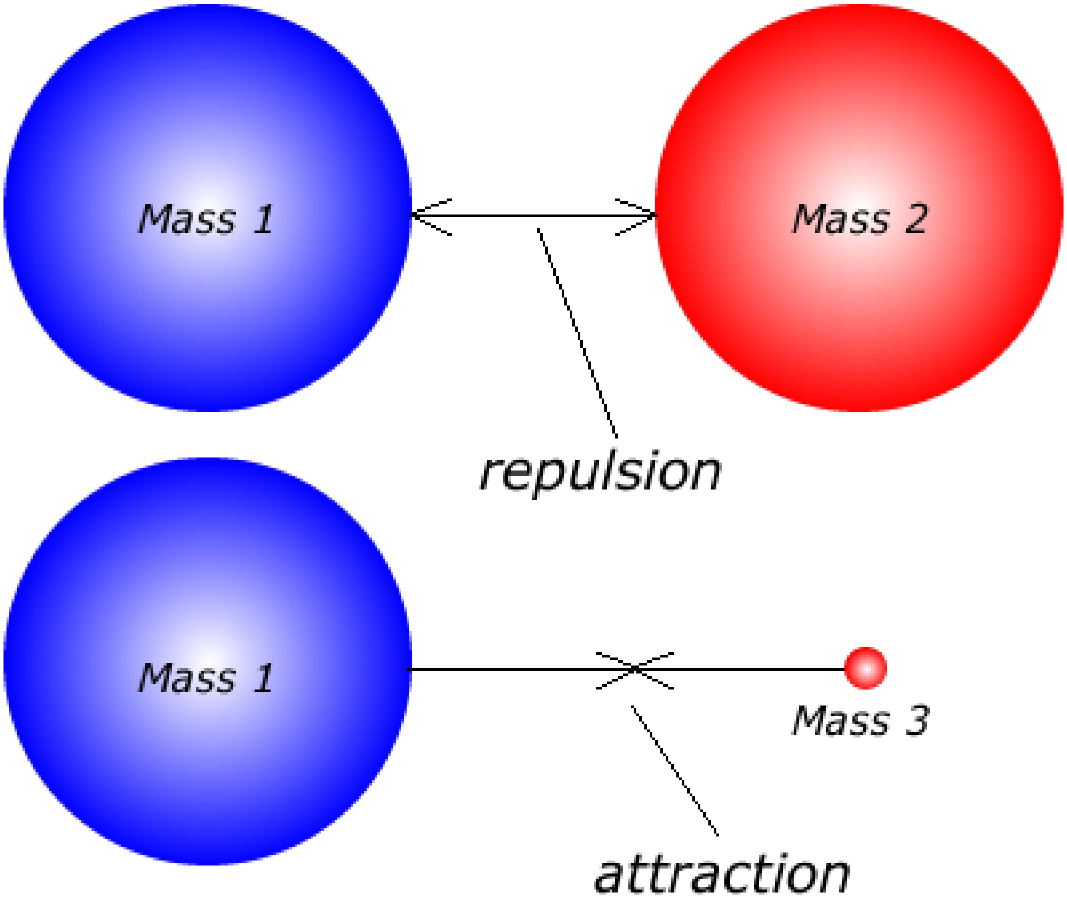
The effect of gravity and the effect of charge are related to frequencies and amplitudes produced by an object of perceived matter. Due to its size, some objects produce different ranges of frequencies, all having and starting from the infinitely highest frequencies. Frequency is dependent on the density and radius of the object's matter. As these frequency ranges intersect across ζ medium, some frequencies interfere with each other and nullify themselves while others have no corresponding nullifying counterpart from the other object and continue to ripple ζ and condense the space between the objects pulling them together. At the same time, the amplitudes of the ripples (light) between both objects of matter exert a push on each object from those frequencies and amplitudes that have not been nullified. Amplitude is also dependent on the density and radius of the objects of matter. At a specific distance, the product force of attraction and repulsion between the two objects can be 0, if the two objects are not similar. The distance between the two objects where the net force is zero, is the natural orbital distance between the two objects and the cause of perpetual orbit along with centripetal force due to Sun's (or star's) spiral distortion of $\boldsymbol{\zeta}$ (due to its spin) effect on attraction between itself and its planetoids. The expansion of $\boldsymbol{\zeta}$ also effects the interaction between two different objects of different size and densities at certain distances due to lowering the frequency and amplitude between both objects with the lower frequencies and high amplitudes decreasing due to this stretching of $\boldsymbol{\zeta}$. We currently call this effect in current Cosmology Red Shift and Blue Shift.

$$\boldsymbol{F_{gravity} = F_{f.difference} - F_{f.equivalence} + F_{mass.\zeta.spin.shear}}$$

The following is the mathematical representation of the new law of gravitation and charge. For historical purposes, and out of immense respect for Sir Isaac Newton, the structure of the formula was maintained, but the Universal Gravitational Constant ($\boldsymbol{G}$) was replaced with mathematical transform better representing the actual effect of gravity and charge.

$$\boxed{\boldsymbol{F_g = \frac{Qm_1m_2}{d^2}}}$$

Cause and Effect of Gravitation and Charge



This effect is due to space-time vibration wave interaction in the form of majority destructive interference (repulsion) and majority constructive interference (attraction)

Q

$\mathbf{Q}$ is a complex mathematical transform representing the effects of gravity and the cause of our conceptualized charge. It is directly related to the frequency and amplitude of all light range (current concept of electromagnetic waves) emitted by all matter and how the interaction of ripples in $\boldsymbol{\zeta}$ medium from two sources result in force.

First it must be noted that all celestial systems over a long relative period of time resemble quantum systems in characteristics, predictability, and effect. The inverse is also true for quantum systems.

The effect of gravity is actually due to several things:

$$\boldsymbol{F}_{\boldsymbol{gravity}} = \boldsymbol{F}_{\boldsymbol{f.difference}} - \boldsymbol{F}_{\boldsymbol{f.equivalence}} + \boldsymbol{F}_{\boldsymbol{mass.\zeta.spin.shear}}$$

All these forces individually are still related to Newton's original equation as in:

$$F \propto \frac{mM}{d^2}$$

This relation no longer can be mended together by just introducing a constant, which in this classical case is $\mathbf{G}$. $\mathbf{G}$ alone does not describe the effect of repulsion which would be the case if both objects are similar in size and density due to vibrations in $\boldsymbol{\zeta}$ in-between both similar objects cancelling each other out, thus nullifying the effect of gravitational attraction in substitute for the gravitational effect of repulsion. This fundamentally describes repulsion between like charged particles since they are physically similar in size and density.

The equation for $\mathbf{Q}$ was derived in several methods neither of which were simple to conceptualize and equate. Of all the methods, there are two equations that best describe this theory and follow our basic understanding of mathematical physics. The first was derived using the understanding that all matter vibrates $\boldsymbol{\zeta}$, due to the spinning systems of their substructure, in a range of frequencies which, if the objects are of different size or density, would be different. This difference in frequency ranges between the two objects generating the vibration is what causes attraction. If the two objects are similar or equal, the two frequency ranges would be equal or close and thus both objects would repel each other where $\mathbf{Q}$ would be $\mathbf{Q} = -\mathbf{G}$ making the gravitational force equation negative representing repulsion. How do we determine the natural frequency of two objects. Well, it was previously stated that the natural frequency and amplitude of any object was postulated to roughly be:

$$f = \frac{3\mu\rho N}{4\pi r^3}$$

$$A = \frac{4\pi r^3}{3\mu\rho N}$$

Using these two equations, a mathematical inverting limiter equation was formulated. The difference between the natural frequencies of two objects determines the frequency range difference between them. The following initial formula was decided to best describe this difference.

$$F_{gravity} = F_{f.difference} - F_{f.equivalence}$$

$$\frac{\nabla}{\Delta}f - \left[1 - \frac{\nabla}{\Delta}f\right] = \left|\frac{f_1 - f_2}{f_1 + f_2}\right| - \left[1 - \left|\frac{f_1 - f_2}{f_1 + f_2}\right|\right]$$

$$F_{gravity} = \left|\frac{f_1 - f_2}{f_1 + f_2}\right| \frac{Gm_1m_2}{d^2} - \left[1 - \left|\frac{f_1 - f_2}{f_1 + f_2}\right|\right] \frac{Gm_1m_2}{d^2}$$

$$2\frac{\nabla}{\Delta}f - 1 = 2\left|\frac{f_1 - f_2}{f_1 + f_2}\right| - 1$$

$$F_{gravity} = G\left(2\left|\frac{f_1 - f_2}{f_1 + f_2}\right| - 1\right)\frac{m_1m_2}{d^2}$$

Substituting the postulated Natural Frequency equation (for spheres) and assuming that **N=1** (neutral substructure)

$$f = \frac{3\mu\rho N}{4\pi r^3}$$

The following equation is derived

$$F_{gravity} = G\left(2\left|\frac{\frac{{r_1}^3}{\rho_1} - \frac{{r_2}^3}{\rho_2}}{\frac{{r_1}^3}{\rho_1} + \frac{{r_2}^3}{\rho_2}}\right| - 1\right)\frac{m_1m_2}{d^2}$$

$$F_{gravity} = G\left(2\left|\frac{\frac{{r_1}^3}{\rho_1}-\frac{{r_2}^3}{\rho_2}}{\frac{{r_1}^2}{\rho_1}+\frac{{r_2}^2}{\rho_2}}\right|-1\right)\frac{m_1 m_2}{d^2}$$

$$F_{gravity} = G\left(2\left|\frac{\rho_2 {r_1}^3-\rho_1 {r_2}^3}{\rho_2 {r_1}^3+\rho_1 {r_2}^3}\right|-1\right)\frac{m_1 m_2}{d^2}$$

$$F_{gravity} = G\left(2\left|\frac{m_2\frac{{r_1}^3}{{r_2}^3}-m_1\frac{{r_2}^3}{{r_1}^3}}{m_2\frac{{r_1}^3}{{r_2}^3}+m_1\frac{{r_2}^3}{{r_1}^3}}\right|-1\right)\frac{m_1 m_2}{d^2}$$

After applying this formula to several test problems, the results closely matched the observed values.

This equation was far from complete. It still lacked refinement, but the purpose of this paper was to propose a new perspective on the effect of gravity and give a formulated definition of which the scientific and non-scientific communities can use as a starting point.

At this point we must take into consideration the postulated theory that relative realities are displaced by scale and time difference as it relates to the values of **S** and **c**. This means that atomic, sub-atomic, quantum and sub-quantum realities are perceived to have the passage of time much more accelerated in comparison to our own reality. This has considerable implications in relation to any force equation including this gravitational equation. Why? Because it means that the medium of which the forces permeate through is accelerated also. Therefore quantum forces are considered much stronger in relative consideration to forces generated by the same means in our reality scale and passage of time. Let me try to explain better. If the vibration of the ***ζ*** attributes the effect of gravity at the celestial scale these vibrations traverse space at the speed of light (**c**) then at the quantum scale, the same thing happens except at quantum speed of light which is much faster than celestial light (it's all in what we have labeled light) because its amplitude is much, much smaller than our own perceived light and it's frequency is much, much higher. Essentially quantum light, due to its enormous speed over **c** and its produced "magnetic" wake, becomes the fabric of space we experience at the celestial scale. It becomes a new version of the concept of the Aether, the corner stone of our reality, and possibly what we observe in force field experiments (electric and magnetic fields). So, understanding that quantum forces travel faster than **c** thus quantum forces are perceived by us to be stronger even though relatively, they are the same. So how can this be applied to the new gravitational equation being derived here? All force equations have a time component in the form of acceleration:

$$F = ma \rightarrow kg.m/s^2 = Newton$$

The gravitational constant *G* also has a time component in relation to acceleration:

$$G \rightarrow (m^2/kg^2)(kg.m/s^2)$$

Taking into consideration that postulated time difference equation with regards to size:

$$\Delta t = \Delta t_o \left(1 + \frac{R}{r_1 r_2}\right)$$

Thus one second in our reality would in any other smaller scaled reality be:

$$\Delta t = 1s \left(1 + \frac{R}{r_1 r_2}\right)$$

So putting it all together:

$$F_{gravity} = G\left(1 + \frac{R}{r_1 r_2}\right)^2 \left(2\left|\frac{m_2\left(\frac{r_1}{r_2}\right)^3 - m_1\left(\frac{r_2}{r_1}\right)^3}{m_2\left(\frac{r_1}{r_2}\right)^3 + m_1\left(\frac{r_2}{r_1}\right)^3}\right| - 1\right)\frac{m_1 m_2}{d^2}$$

Where **Q** can also be described as:

$$Q = G\left(1 + \frac{R}{r_1 r_2}\right)^2 \left[2\left(\frac{\nabla}{\Delta}Mr\right) - 1\right]$$

where

$$\frac{\nabla}{\Delta}Mr = \left|\frac{m_2\left(\frac{r_1}{r_2}\right)^3 - m_1\left(\frac{r_2}{r_1}\right)^3}{m_2\left(\frac{r_1}{r_2}\right)^3 + m_1\left(\frac{r_2}{r_1}\right)^3}\right|$$

Thus the Gravitational Equation would be:

$$\boldsymbol{F_{gravity}} = \boldsymbol{G\left(1+\frac{R}{r_1r_2}\right)^2\left(2\left|\frac{m_2\left(\frac{r_1}{r_2}\right)^3 - m_1\left(\frac{r_2}{r_1}\right)^3}{m_2\left(\frac{r_1}{r_2}\right)^3 + m_1\left(\frac{r_2}{r_1}\right)^3}\right| - 1\right)\frac{m_1m_2}{d^2}}$$

The variable $\mathbf{N}$ is formulated into the equation via the concept of mass to describe the effect of Neutrality in both system objects as it relates to its quantum substructure and our current concept of charge.

Again, this formula is a rough estimate of the theorized effect of gravity and essentially all forces generated by vibration in $\boldsymbol{\zeta}$, especially charge force. It expresses this paper's postulated theory on the actual effect of gravity fairly nicely thus far. As my research continues I hope to refine this equation.

This alone would describe the effects of charge as perceived in quantum physics but now described also at the celestial scale and relations between objects of the celestial and quantum, but this is still not the complete formula. It does not take into consideration the spin of the objects which also generates an attraction force due to shearing the $\boldsymbol{\zeta}$ between the objects. Spin is related to velocity and velocity too is related to time. The following equation was derived again taking into consideration that time passes faster at a quantum scale. Personally, I still believe the spin-shearing portion of the equation requires more work than the frequency portion. However it still describes the effect of space-time and spin-shear attraction. It also considers the space-time spin-shear repulsion effect if one object is not spinning. The frequency portion too still requires more work to factor in the cause of red-shift and blue-shift which I have began formulating.

$$\boldsymbol{F_{gravity}} = \boldsymbol{\left(\left(G\left(1+\frac{R}{r_1r_2}\right)^2\left(2\left|\frac{m_2\left(\frac{r_1}{r_2}\right)^3 - m_1\left(\frac{r_2}{r_1}\right)^3}{m_2\left(\frac{r_1}{r_2}\right)^3 + m_1\left(\frac{r_2}{r_1}\right)^3}\right| - 1\right)\right) + \left(Z\left(1+\frac{R}{r_1r_2}\right)^2 v_1v_2\right)\right)\frac{m_1m_2}{d^2}}$$

The equation above uses very simply *Momentum* (mv) of the spinning masses to calculate the attraction force due to spin-shear. This equation, in regards to the spin-shear portion of the equation, has to incorporate mass-density similarity in order to null the spin-shear portion of the equation. If the difference is too great then space-time spin-shear is not perceived to be the same effect by either two of the masses. The spin-shear portion of the equation can be considered null (though really it isn't) because then the interaction of the masses would be the interaction of a celestial object interacting with a single quantum particle (akin to static charge) therefore not at the same scale as the celestial object and unable to form a stable system bond at the celestial scale. Thus the following equation can be used though I personally believe it still needs much more work:

$$\boldsymbol{F_{gravity}} = \left(\left(\boldsymbol{G}\left(\boldsymbol{1}+\frac{\boldsymbol{R}}{\boldsymbol{r_1 r_2}}\right)^2\left(\boldsymbol{2}\left|\frac{\boldsymbol{m_2}\left(\frac{\boldsymbol{r_1}}{\boldsymbol{r_2}}\right)^3-\boldsymbol{m_1}\left(\frac{\boldsymbol{r_2}}{\boldsymbol{r_1}}\right)^3}{\boldsymbol{m_2}\left(\frac{\boldsymbol{r_1}}{\boldsymbol{r_2}}\right)^3+\boldsymbol{m_1}\left(\frac{\boldsymbol{r_2}}{\boldsymbol{r_1}}\right)^3}\right|-\boldsymbol{1}\right)\right) + \left(\boldsymbol{Z}\left(\boldsymbol{1}+\frac{\boldsymbol{R}}{\boldsymbol{r_1 r_2}}\right)^2\boldsymbol{v_1 v_2}\left(\boldsymbol{1}-\left|\frac{\boldsymbol{m_2}\left(\frac{\boldsymbol{r_1}}{\boldsymbol{r_2}}\right)^3-\boldsymbol{m_1}\left(\frac{\boldsymbol{r_2}}{\boldsymbol{r_1}}\right)^3}{\boldsymbol{m_2}\left(\frac{\boldsymbol{r_1}}{\boldsymbol{r_2}}\right)^3+\boldsymbol{m_1}\left(\frac{\boldsymbol{r_2}}{\boldsymbol{r_1}}\right)^3}\right|\right)\right)\right)\frac{\boldsymbol{m_1 m_2}}{\boldsymbol{d^2}}$$

Now the harder portion to formulate is the resulting effect if one mass is spinning much faster than the other. If this is the case, the spin-shear attraction force turns to repulsion.

$$\boldsymbol{F_{gravity}} = \left(\left(\boldsymbol{G}\left(\boldsymbol{1}+\frac{\boldsymbol{R}}{\boldsymbol{r_1 r_2}}\right)^2\left(\boldsymbol{2}\left|\frac{\boldsymbol{m_2}\left(\frac{\boldsymbol{r_1}}{\boldsymbol{r_2}}\right)^3-\boldsymbol{m_1}\left(\frac{\boldsymbol{r_2}}{\boldsymbol{r_1}}\right)^3}{\boldsymbol{m_2}\left(\frac{\boldsymbol{r_1}}{\boldsymbol{r_2}}\right)^3+\boldsymbol{m_1}\left(\frac{\boldsymbol{r_2}}{\boldsymbol{r_1}}\right)^3}\right|-\boldsymbol{1}\right)\right) + \left(\boldsymbol{Z}\left(\boldsymbol{1}+\frac{\boldsymbol{R}}{\boldsymbol{r_1 r_2}}\right)^2\boldsymbol{v_1 v_2}\left(\boldsymbol{1}-\boldsymbol{2}\left|\frac{\left(\frac{\boldsymbol{v_2}}{\boldsymbol{v_1}}\right)^{\boldsymbol{3e}}-\left(\frac{\boldsymbol{v_1}}{\boldsymbol{v_2}}\right)^{\boldsymbol{3e}}}{\left(\frac{\boldsymbol{v_2}}{\boldsymbol{v_1}}\right)^{\boldsymbol{3e}}+\left(\frac{\boldsymbol{v_1}}{\boldsymbol{v_2}}\right)^{\boldsymbol{3e}}}\right|\right)\left(\boldsymbol{1}-\left|\frac{\boldsymbol{m_2}\left(\frac{\boldsymbol{r_1}}{\boldsymbol{r_2}}\right)^3-\boldsymbol{m_1}\left(\frac{\boldsymbol{r_2}}{\boldsymbol{r_1}}\right)^3}{\boldsymbol{m_2}\left(\frac{\boldsymbol{r_1}}{\boldsymbol{r_2}}\right)^3+\boldsymbol{m_1}\left(\frac{\boldsymbol{r_2}}{\boldsymbol{r_1}}\right)^3}\right|\right)\right)\right)\frac{\boldsymbol{m_1 m_2}}{\boldsymbol{d^2}}$$

$\boldsymbol{Z}$ is an *unknown* space-time spin-shear transform equation, but essentially for low velocities with objects in proximity of the same size, $\boldsymbol{Zf(v_1|v_2)} \cong \boldsymbol{0}$ thus we can neglect it somewhat, but to truly understand molecular and star system bonds, this portion of the equation is very important because it is the counter balance to the rest of the equation achieving a *stable system bond* (akin to molecular bonds).

Now let's factor in the new Relativity equations postulated much earlier in this paper:

$$F_{gravity} = \left(\left(\left(G\left(1+c_o\left(\frac{v}{c}\right)^{3e}\right)^2\left(2\left|\frac{\left(\frac{m_2}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_1}{r_2}\right)^3-\left(\frac{m_1}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_2}{r_1}\right)^3}{\left(\frac{m_2}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_1}{r_2}\right)^3+\left(\frac{m_1}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_2}{r_1}\right)^3}\right|-1\right)\right)\right.\right.$$

$$\left.+\left(Z\left(1+c_o\left(\frac{v}{c}\right)^{3e}\right)^2 v_1 v_2\left(1-2\frac{\left(\frac{v_2}{v_1}\right)^{3e}-\left(\frac{v_1}{v_2}\right)^{3e}}{\left(\frac{v_2}{v_1}\right)^{3e}+\left(\frac{v_1}{v_2}\right)^{3e}}\right)\right)\left(1\right.\right.$$

$$\left.\left.\left.-\left|\frac{\left(\frac{m_2}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_1}{r_2}\right)^3-\left(\frac{m_1}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_2}{r_1}\right)^3}{\left(\frac{m_2}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_1}{r_2}\right)^3+\left(\frac{m_1}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_2}{r_1}\right)^3}\right|\right)\right)\right)\frac{\left(\frac{m_1}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{m_2}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)}{d^2}$$

What is interesting about this formula is that mass-weight (mass-gravity) becomes quantum charge when **v** (velocity of the collective system) approaches **c**, which would make this formula resemble Coulomb's charge force formula and essentially unite Newton's gravity and Coulomb's charge which further unites all forces under one equation. It's still needs refinement, but the principles around this cause and effect are now laid for a true unification and representation of the actuality of physics.

13.0 Velocity

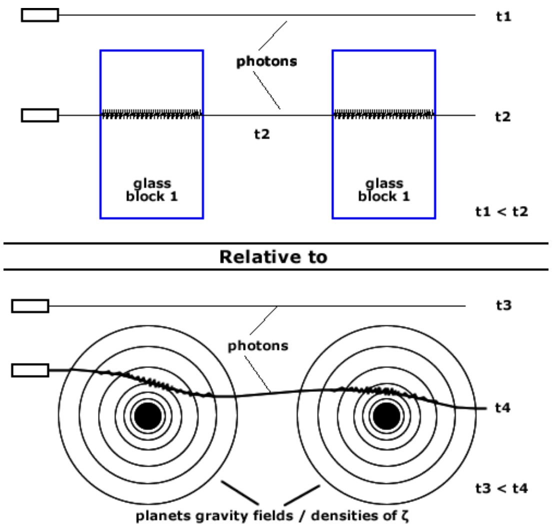
Speed of Light

The speed of light is not constant and it changes due to the density of ζ. In fact, the density of ζ, which is a product of the previous reality, such as the quantum realm, *naturally* dictates the *natural* speed of light in our realm, the celestial realm. This postulation of the quantum realm dictating the natural state of the celestial realm, and thus the sub-quantum realm dictating the natural state of the quantum realm has enormous implications on how we currently perceive physics especially how we perceive the speed of light. In its truest form, light, all light, are ripples in ζ. This means that cause and effect of sound, waves on water and visible light are all the same mechanism, but their speeds of propagation are vastly different.

The ζ in between the objects of "matter" is more condensed than in the deep blackness of nominal space. In this theory, there is no absolute nominal space density, but it will be used as a conceptual reference point as lowest density ζ. It can also be assumed that the density of ζ on Earth's surface is our main reference point and can be considered ζ_{Er} which I personally prefer.

In deep nominal space, time would travel slower than on the surface of Earth because ζ is denser on the surface of the planet, but this is assuming that nominal space is real. It's possible that the density of ζ on the surface of Earth is actually less dense than that in deep-space due to its amplification of superposition of ζ vibration from the planet's core to its surface.

So assuming nominal space is real, this means that light, ripples in ζ , would travel much faster in ζ_{NS} relatively compared to our planet's own denser ζ, because ζ_{NS} is stretched more; ζ_{NS} *modulus of elasticity* is higher. This is known as *refraction*, but at more gradual scale with no big changes between densities beside each other. Basically, this means Faster than Light (FTL) travel is possible in relative comparison to our timeframe of reference here on Earth. In the deep darkness of space, *light* will travel faster from our perspective. What changes is the density of ζ and its modulus of elasticity**.**



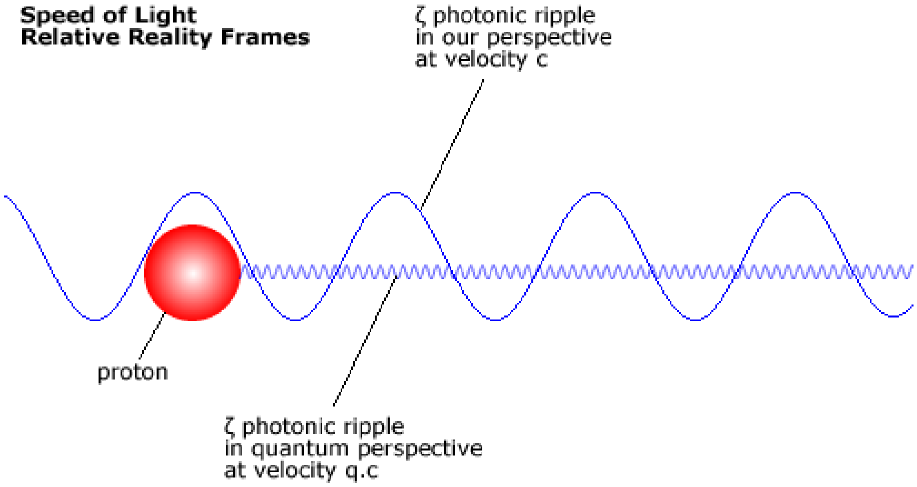
The effect of refraction on light photon traveling along ***ζ*** takes longer to traverse denser, higher frequency (due to interaction with matter) ***ζ*** (medium) than less dense ***ζ***.

The speed of light is dependent on the modulus of elasticity of ***ζ*** and its density. Due to the fact that realities are relative, it can be stated that the speed of light, which is the speed of vibration, is parallel to the speed of sound where the medium is the same just at different densities.

$$c = \sqrt{\frac{B_\zeta}{\rho_\zeta}}$$

c = speed of light, for a specific range of proportional f & A at our reality scale
B = ζ modulus of elasticity
ρ_ζ*= density of ζ*

This only represents the speed of light for electromagnetic waves that we can measure currently. At the quantum scale, a ripple of our own measurable electromagnetic waves would be enormous to a quantum system. However, by a quantum observer, a ripple of our perceivable light will not be perceived as light or electromagnetic waves at the quantum, but enormously large and slow **ζ** fluctuations affecting the entire atom systems at speeds much, much slower than those the quantum observer would consider light. This leads us back again to relative realities. At the quantum scale, tau (*τ*) is much smaller than in our reality, thus time passes extremely fast at the quantum scale compared to our own scale which translates into extremely fast electron (quantum planet) orbits around the atomic nuclei (quantum inner system). An atom, as seen through our best telescopes, appears to be a blur. This perceived blur are the electrons orbiting the nuclei at extremely fast velocities. This being the case, then we are faced with a problem with relative realities. This problem is that the speed of light, as perceived by a quantum observer, would appear to travel at the same velocity as we perceive light to travel in our reality. This means that at the quantum scale, the speed of "quantum" light, a light at an enormously high frequency and equivalently lower amplitude, travels much, much faster than light as we perceive it. Continuing this train of thought, the smaller the reality, the smaller tau (*τ*) becomes and the faster light travels until it reaches a point that light travels everywhere instantaneously. This light would have an infinitely high frequency and an infinitely low amplitude. Essentially, at this extreme, it can be stated, that light becomes **ζ** itself since it would be travelling instantaneously in all directions. This leads to only one other conclusion, the perception of scale is dependent on the observer's position in the reality scale, which dictates their perception of where objects are located due their understanding of their perceivable speed of light. ***Basically, a planet we perceived at a certain size, is perceived to be a galactic system of stars to a quantum observer where atomic nuclei are seen as stars or the inner system of a star***.



All measurable light is a space-time vibration produced by excited atoms. Electrons changing orbits cause photons to leave the atomic system. What is actually happening is that these electrons fluctuate/vibrate space-time "substance" (medium) as they flip orbits in the excited atom. All "known" photons are generated in the same fashion. Space-time vibrations/ripples/fluctuations are caused by "any" mass accelerating from point A to point B. When it moves, due to acceleration, it distorts space-time, just like excited electrons flipping orbits (moving an orbit down to a faster orbit). The only difference is that the bigger the accelerating mass causing the vibration, the slower the vibration. While the smaller the accelerating mass, the faster the vibration. The source of all measurable light vibration (excited atoms) dictates the frequency and "amplitude"/intensity of the space-time vibration (photon) and since these sources are consistent in size, the speed of these vibrations are consistent, thus the speed of light ($\mathbf{c}$). Because the source of all measurable light is the same, all currently visible light travels at c, but what if the vibration was caused by an object smaller than an electron or off the surface of an electron or the from the electrons sub-quantum structure? First off we couldn't measure or even see this form of light (vibration), but it would still exist (see diagram above). I call this light quantum light and sub-quantum light. This light (space-time vibration) is much, much faster than $\mathbf{c}$ as it is described the following equation. In this equation, the amplitude ($\mathbf{A}$) is actually the radius of the atom, though it might also be any radius from the outer edge of the atom to the nucleus. But lets not stop there. It can also be the radius of an electron or that of sub-quantum particles at a size scale divided by $\boldsymbol{S}$, and an infinite multiple divisions of $\boldsymbol{S}$ to the infinitely small particle.

$$\boldsymbol{f \uparrow A \downarrow c \uparrow}$$

$$\boldsymbol{c = H\frac{f}{A}, \qquad c = H\frac{f}{r_{atom}}}$$

$$\boldsymbol{thus\ c\ is\ not\ constant}$$

$$\boldsymbol{H = \frac{Ac}{f} = \frac{r_{atom}c}{f}}$$

$$\boldsymbol{H = \frac{Ac}{f} = \frac{(r_{avg.neon-helium})(3.0x10^{8}m/s)}{(f_{red.light})}}$$

$$H = \frac{(3.45x10^{-10}m)(3.0x10^{8}m/s)}{(4.741x10^{14}/s)}$$

$$H = 2.183x10^{16}m^{2}$$

Our "current" definition of light, photons, have the same amplitude (intensity) as the next. To repeat, that's because the source of all photons, under current convention, is the same which are excited atoms. Essentially all vibrations, fluctuations, in space-time constitute this theory's definition of light. This includes transverse sound waves, ripples through water and even a string vibration (plus many other examples). They are all the same effect at different frequencies and amplitudes. What is most important, each one of these representations of space-time vibration have different velocities.

We have always written $\mathbf{c}$ as

$$c = \lambda f$$

which neglects amplitude, intensity and energy of the wave which directly correlates to the speed of ripples through $\boldsymbol{\zeta}$. Why because we can't see space-time vibration amplitudes. When in actuality it is more correct to state, though still not absolutely correct:

$$v = \lambda f$$

This then applies to sound waves because c implies a constant universal speed for ripples in $\boldsymbol{\zeta}$ which is incorrect.

Why then do we perceive $\mathbf{c}$ to be constant over a large spectrum? The answer is because the frequency to amplitude ratio is *fairly* consistent over a *certain* electromagnetic spectrum and also due to our misclassification of what we consider light to be. When we start looking at the sub-quantum frequency to amplitude ratios we notice that there is a Universal natural jump in velocity of the $\boldsymbol{\zeta}$ ripples at those scales because of a Universal natural scale difference between celestial, quantum and sub-quantum realities. Measuring or even detecting quantum light generated from sub-quantum particles is very difficult except when it relates to force, but even then it is very difficult to detect and measure and may be easily misclassified as something possibly unrelated.

Now, the passage of time in the quantum realm, and especially in the sub-quantum realm, is extremely increased compared to celestial systems including our own human scale. The exact cause of this is attributed to the conceptual notion of ζ density. This means that quantum particles are extremely more dense than what we currently perceive as matter, since our notion of matter is constructed of quantum particles. In turn, sub-quantum particles are even more dense in comparison to quantum particles. This exponential scale decrease in size and exponentially increases in density at these smaller reality scales leads to an increased ζ density and decrease in time variant tau as the reality scales become smaller in relative relation to larger containing realities. Essentially, at exponential scales of reality, realities will look the same to each other with the only difference being that the passage of time for "smaller" realities exponentially increases, but to an observer in each reality, physics are the same, such as the speed of light "appearing" to be $c=3.0E8m/s$ in each respective reality, but as viewed from a containing reality, such as the celestial scale (I consider this our own scale), the equivalent proportional scale difference in ζ ripple amplitude resulting in a quantum observers perspective of their speed of light at the quantum scale, quantum "light" (ζ ripples) of a much higher frequency and much smaller amplitude is much faster than our perception of light. Roughly $c_q=9x10^{16}m/s$ is the quantum equivalent of the speed of light relative to our reality.

Quantum Radio Model

This means that quantum light travelling at c_q could reach the Alpha Centuri star system in 0.1893s. This can easily lead to a new type of radio system utilizing quantum radio signals. Such a system cannot use traditional radio modulation, since at the quantum scale manipulation by our current understanding of electricity in order to produce modulation is very, very difficult, but the utilization of a digital system where all we'd need is a very bright, constant quantum light source such as atoms stripped of all their electrons and then digitizing this light source by blocking and unblocking the quantum light source. Of course this is a very simplified description of it, but the possibilities are enormous. It's possible that if aliens do exist that they are using a form of quantum radio to communicate at enormous distances and hence why we haven't detected any of their signals because they would be undetectable by any of our current radio systems (plus I'd pay more attention to Pulsars).

Quantum Second

A quantum second is the relative equivalent to a second in our timeframe, but much, much faster than 1s as we perceive it. It is theorized and postulated that quantum second is $3x10^8$ times smaller than an Earth or celestial second. Thus a quantum second is:

$$\boldsymbol{s_q = 3.333x10^{-9}s}$$

This would mean that the speed of quantum light (space-time vibration of relative quantum size) would be:

$$\boldsymbol{c_q = 9.0x10^{16}m/s}$$

What this is saying is that quantum light travels $3x10^8$ times faster than the speed of light at the celestial scale which has huge implications if used in communications, but being able to utilize small space-time vibration is very difficult.

The following is an attempt to calculate a quantum second from some real measured values using the frequency equation. Time is inversely proportional to the natural frequency of an object, thus relatively a quantum second would be inversely proportional to a celestial object's perception of time with regards to its natural frequency. Again, there is time dilation on celestial objects of different size and mass relative to Earth, which is related to the natural frequency and amplitude uniquely generated by each of the two bodies due to each body's density, size and the amplification of superposition of space-time vibration from its core to its surface.

$$\boldsymbol{f = \frac{v}{2\pi r}}$$

Where f = 10^{20}Hz for atom's nuclei which is relative to the star system's inner system.

$$10^{20} = \frac{v}{2\pi(8.944E - 12m)}$$

$$v = 10^{20}2\pi(8.944E - 12m)$$

$$v = 5.62E9\ m/s$$

The Asteroid Belt has an average system orbit of 18573m/s which is relative to the quantum nucleus orbital velocity of 5.62E9m/s, thus

$$s_q = \frac{18573m}{5.62E9m/s}$$

$$s_q = 3.3E - 6s$$

which results on quantum light speed being $c_q = 9E13m/s$ *relative to us.*

$$\frac{\boldsymbol{q.c}}{\boldsymbol{c}} = \mathbf{300000.00}$$

and is very close to

$$\boldsymbol{c^{\sqrt{e}} = q.c}$$

This calculation is very rough.

Of course this is all assuming one thing, *that concept of scale is constant*. This train of thought continues to evolve to the point, and one aspect of this theory, that all forces are the representations of each other at different scales; all forces are due to the interactions of vibrations in $\boldsymbol{\zeta}$ or the distortion of $\boldsymbol{\zeta}$. Now that it is understood that quantum light travels at a much faster velocity than celestial light, this adds a whole new perspective to perceived magnitude of conceptually different forces. Electric charge force is the same force as gravity but generated from quantum particles at higher frequencies, compared to macro/celestial objects which result in gravity, and is also due to the vibration of $\boldsymbol{\zeta}$ between two or more objects. This being the case, then it can be stated:

Charge Force Travels Relatively Faster Than Gravitational Force Thus Charge Force is Stronger than Gravitational Force Though They are Produced by The Same Space-Time Cause and Effect Due to Space-Time Vibration

Different Flavours of $\boldsymbol{\zeta}$

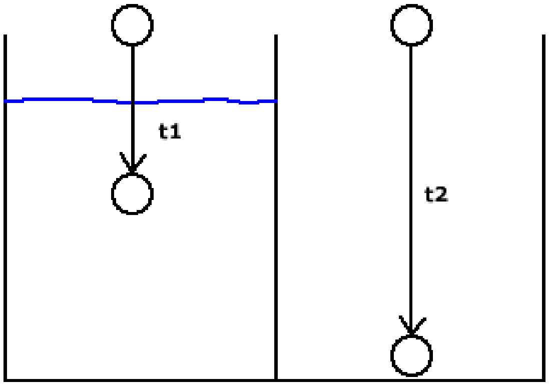
Now this leads to another interesting aspect of the quantum realm's relation to the celestial realm. It is possible that due to the quantum realm's accelerated time that atomic systems and the spin of quantum particles actually generate different "flavours" of $\boldsymbol{\zeta}$. This notion is due to quantum magnetic field lines being misinterpreted as $\boldsymbol{\zeta}$ at the celestial scale which then would allow ripples travelling along it to travel only at $\mathbf{c}$ in our reality. Personally, I believe this notion must be stated, though I believe that $\boldsymbol{\zeta}$ is the conceptual fabric of the Universe at all levels of reality including the sub-quantum, quantum and celestial realms where the distortion and energy levels permeating $\boldsymbol{\zeta}$ attribute for what we perceive as everything.

Speed of Matter

The speed of matter is also dependent on the density of $\boldsymbol{\zeta}$, but it does not travel along the path of $\boldsymbol{\zeta}$, because matter is made of $\boldsymbol{\zeta}$ and not a ripple travelling along it. According to this theory's concept of dimension, matter is made up of complex and dense dimensional constructs of d^0 and d^1 where d^1 is $\boldsymbol{\zeta}$, thus it acts different than a vibration ripple travelling along less dense $\boldsymbol{\zeta}$ than the density of $\boldsymbol{\zeta}$ in matter. For this to be better understood, we must remember that realities are relative, so we will take the example of water again to explain this.

Terminal Velocity Water Example

A metal sphere is dropped into a deep ocean. As the sphere falls and cuts through the water, it will eventually reach something we call *terminal velocity*, which is the maximum speed the sphere can cut through water molecules and water viscosity tensors ($\boldsymbol{\zeta_v}$). This velocity is finite and can be measured. Another equal sphere is dropped out of a plane many kilometers above the ground. This sphere will also fall and cut through air molecules and air viscosity tensors until it reaches a terminal velocity in the air. If we compare the two terminal velocities of both falling spheres, we notice that the sphere that fell through air had a much higher terminal velocity. Why? Because the density of air is less than the density of water, thus the density of air viscosity tensors ($\boldsymbol{\zeta_v}$) is much less than the water viscosity tensors ($\boldsymbol{\zeta_v}$).



t1 >> t2

Terminal Velocity

Terminal velocity is dependent on the amount of force propelling an object through a substance. The more force applied, the higher the terminal velocity of the propelling object. How does this relate to **ζ**? Since we don't know what the terminal velocity of matter is in space because we haven't observed it, we *assume* that the speed of light (**c**) was the absolute speed limit of matter travelling in space-time. What can decisively be said is that the space terminal velocity of matter is inversely proportional to the density of **ζ** it is *cutting* through. The higher the density, the slower an object can cut through it as observed by a stationary observer. This directly implies that cutting through **ζ** exerts a resistive force against an object cutting through it. This resistive cutting force is another property of **ζ**.

Inertia

Inertia is the law that states an object at rest or in motion at a constant velocity remains at rest or in motion unless acted upon it by an external force. This rule also applies to an object in motion, though this theory challenges that notion.

An objects movement in **ζ** is resisted against by **ζ** itself. For an object to move through **ζ**, it must cut through it with force which is higher than the force against bending, stretching and eventually cutting **ζ**. This resistive force is what we have perceived to be Inertia and something we take hugely for granted because every moment of our lives we experience it.

Inertia is directly proportional to density of **ζ**. The higher the density of **ζ** the greater the Inertia and remember that the greater the density of **ζ** the faster time passes in comparison to another passage of time in lower density of ***ζ.*** Are the two effects related? Yes.

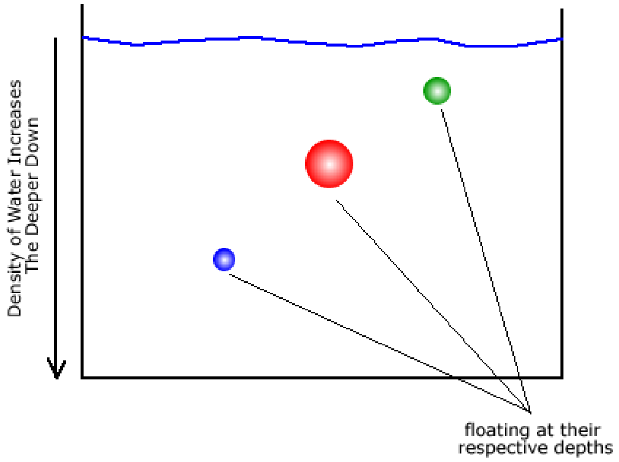
14.0 ζ Buoyancy & Anti-Gravity

Anti-gravity is simply the cause and effect of buoyancy where the medium containing density and pressure differentials is space-time (**ζ**) itself. This chapter will cover all aspects of anti-gravity right from the cause to the actual effect and possible technological applications.

Buoyancy

If gravity is due to the internal vibrations of matter vibrating **ζ**, then to null the effect of gravity, one has to vibrate **ζ** with an interfering frequency to loosen **ζ** and reduce its effect. The effect of antigravity is the buoyancy of low density **ζ** floating on and away from higher density **ζ**. It has been previously mentioned, that the notion of density of **ζ** is directly related to the superposition of all frequencies and amplitudes of **ζ** caused by matter.

Anti-Gravity - ζ Buoyancy

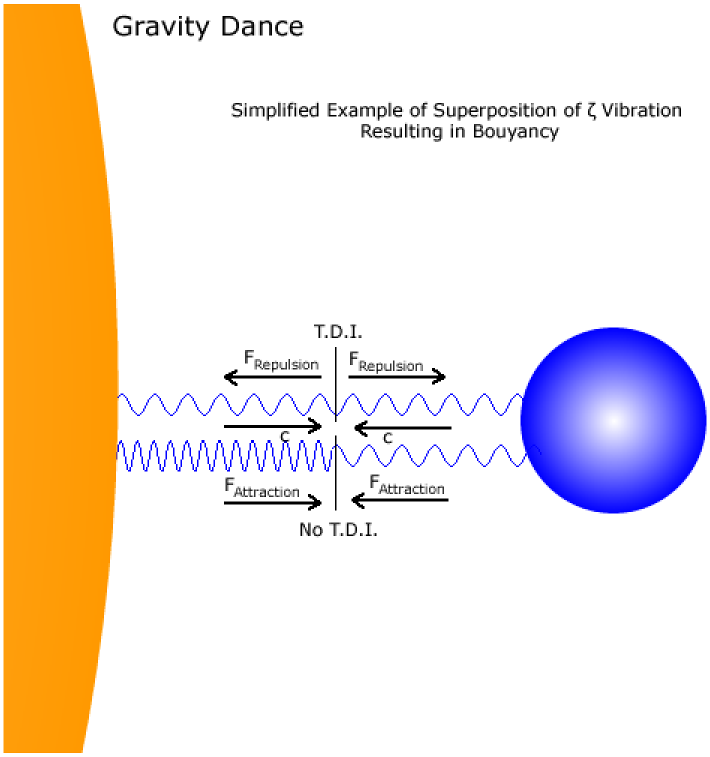


Buoyancy is the effect of less dense substance (object) floating on, or residing in a more dense substance. Now considering ships metallic hull floating on water is still abiding by the same rule because the ships denser thin hull (compared to the entire volume of the ship) acts as a barrier between low density air molecules and denser water molecules. If the ship's entire volume was metallic, it would sink. What is the actual cause of this phenomena we have utilized for thousands of years? It is the same effect that clearly defines surface barriers between solid substances and the same effect that repels objects of the same "charge". Our current understanding of this effect is that there is a pressure differential due to the density difference between the substance being submerged and the substance it's submerging into (ex. water) at different distances from the source or major density. For example, the further a ball submerges into water, the higher the density and thus the higher the pressure is exerted on the ball allowing it to only submerge a certain distance before it can no longer submerge any further. At this distance, the force due to pressure below the ball is equal to the force of "gravity" on the ball (force of attraction on the ball by the Earth plus the force of pushing from the Universe on the ball towards the Earth).

Cause

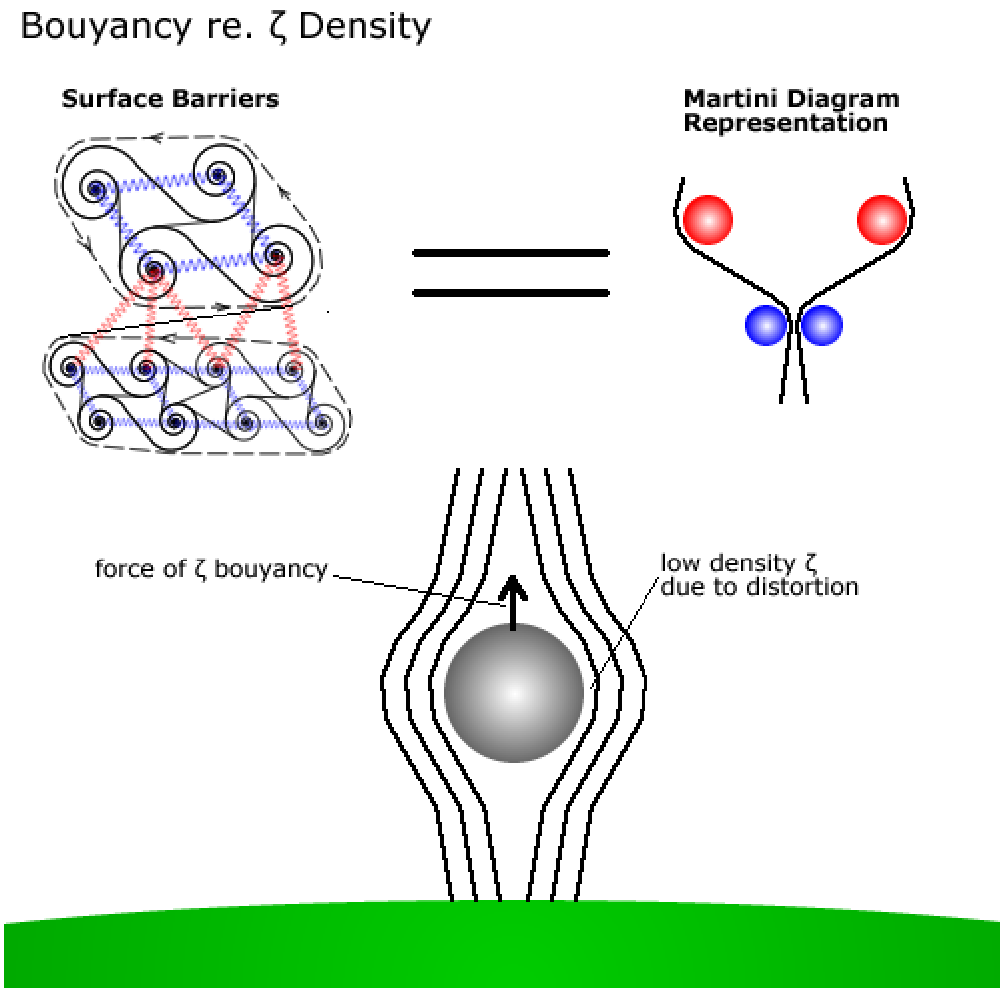
Buoyancy, in its rudimentary form at the molecular and atomic scale, is caused by destructive vibration/wave interference between atoms in a molecule where the distances between atoms of two different substances (such as water and air) are different. This is attributed to the spiral **ζ** spin-shear attraction between molecular or atomic systems and their neutrality level compared to other atomic systems. Some atomic systems have more quantum particles in their system making them more neutral by cancelling "leakage" vibration of nucleus **ζ** ripples (quantum light), essentially making the leakage vibration higher frequency and lower amplitude compared to less neutral atomic system thus less dense system. These differences lead to a difference in matter density of the substances which then translates into buoyancy. The composition of substances is important, for example when being used in metal ships hull, which is usually of higher density than water. It acts as a barrier to the very low density air the hull is separating and containing, but at the core the principles is destructive vibration interference and neutrality interaction with water, through the barrier of the ship's hull and the air it contains. It has been mentioned, all substances, specifically its molecules and atoms, vibrate at their natural frequencies which are different from each other. Each vibration has a collective amplitude and frequency of on the field lines of **ζ** permeating from the substance to other substances. For example, the Earth's collective frequency and amplitude, which is directly related to the Earth radius and mass density, is so massive a range of vibrations from infinitely high frequencies and infinitely small amplitudes to Earth's very small natural frequency and high amplitude, that we humans would not perceive as easily as the smaller superposition of wave crests on this large wave superposition. Just to reiterate, these frequencies and amplitudes in unison attribute to the collective pull between separated masses, such as planets. Now, as these vibrations collectively permeate the

ζ medium connected to both masses, they will have to cross paths. If the interacting waves are of very different amplitudes and frequencies, they will "merge" destructively but mostly constructively which still results in the condensation of the **ζ** between the two masses and contributing the attraction force (pull), which is the cause and effect of gravity. Now if the majority of **ζ** waves crossing paths along **ζ** medium between both masses have similar frequencies and amplitudes, they will reduce the condensation of **ζ** and effectively "stretches" **ζ** between the two masses which is observed and interpreted as a repulsive force. This is the same repulsive force that separates particles of the same charge, except that the perceived intensity is different due to difference in the relative passage of time between quantum and celestial realities.



At the celestial scale, all low amplitudes and high frequencies "cancel" each other between two celestial bodies only having the large, end product of superposition vibration left. Even this large vibration wave can be cancelled depending the size, volume and density of each celestial body.

All vibrations caused by small bodies are cancelled by the large body at specific distances apart from each other (ex. Earth and Sun) starting from the highest frequency and lowest amplitude, eventually up to the largest amplitude and lowest frequency produced by the smaller celestial body. The largest wavelength superposition vibration, as all other frequencies do, has the largest periodic distance interval, or obits, than the smaller frequencies. Depending on the makeup of both celestial bodies, such as radius and mass-density, not all vibrations are cancelled which still accounts for pull force (gravitational effect of attraction) and also accounts for the fact we still see the Sun’s light (the cause of gravity).


Bouyancy re. ζ Density
Surface Barriers
Martini Diagram Representation
force of ζ bouyancy
low density ζ due to distortion

Buoyancy Matter Equation

This equation is akin to buoyancy matter equation found in fluid dynamics but relating directly to **ζ** densities in a space vacuum.

$$\boxed{\boldsymbol{m_{distorted} = m_{natural}\left(\frac{\rho_{\zeta\, distorted}}{\rho_{\zeta\, natural}}\right)}}$$

Here too the buoyant mass is a relative mass, which then naturally states, mass is relative to the density of $\boldsymbol{\zeta}$ fabric.

Einstein's relativistic matter equation was:

$$\boldsymbol{m_r = m_o\left(\frac{1}{\sqrt{1-\frac{v^2}{c^2}}}\right)}$$

I believe in actuality it is like:

$$\boldsymbol{m_q = \frac{m_o}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}}$$

And the relative objects length equation is more like:

$$\boldsymbol{l_q = \frac{l_o}{1+S\left(\frac{v}{c}\right)^{3e}}}$$

If this is correct, then as an object velocity approaches **c** relative to stationary observer in a *naturally* stationary location, its perceived mass and size *decrease* due to an *accumulation* of $\boldsymbol{\zeta}$ density, *which can be viewed as energy*, entering the objects quantum system due to it cutting through *uniform* but enormously distorted $\boldsymbol{\zeta}$ which is enormously dense directly in front of the object caused by its own acceleration to achieve **c**, or higher velocities in relative comparison to its initial velocity.

To the observer travelling on the moving object, nothing would appear different relatively in the observer's immediate environment, but passing by the stationary observer in a *naturally* set stationary location such as a planet, that observer and in fact the planet would appear to be a large cluster of star systems. The travelling observer's kinetic energy levels have increased, his perception of the passage of time too has increased unsuspecting to the travelling observer which has the effect of perceiving the atomic systems become larger to this traveler as the traveler becomes smaller and relative passage of time increases.

$$\boldsymbol{\Delta t_q = \Delta t_o \left(1 + \frac{R}{\left(\frac{l_o}{\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)} \right)^2} \right)}$$

$$\boldsymbol{\Delta t_q = \Delta t_o \left(1 + S\left(\frac{v}{c}\right)^{3e}\right)}$$

This is still just a postulation and yet to be tested. If this is correct then the following equations would also hold some merit though not very refined.

$$\boldsymbol{l_b = \ l_o \left(\frac{\rho_{\zeta\ distorted}}{\rho_{\zeta\ natural}}\right)}$$

$$\boldsymbol{\Delta t_b = \ \Delta t_o \left(\frac{\rho_{\zeta\ distorted}}{\rho_{\zeta\ natural}}\right)}$$

$$\mathbf{E}_{\boldsymbol{b}} = \ \mathbf{E}_{\boldsymbol{o}} \boldsymbol{\left(\frac{\rho_{\zeta\ distorted}}{\rho_{\zeta\ natural}}\right)}$$

Since the notion of $\mathbf{c}$ being a constant for $\boldsymbol{\zeta}$ distortion ripples perceived as light is not supported by this theory for the fact that the notion of scale is infinite and continuous in both directions, thus relative realities are separated by a *barrier of perception* which is believed to be a marriage of accelerated time, scale and energy due to $\boldsymbol{\zeta}$ density levels (to any observer, the $\boldsymbol{\zeta}$ density in his environment is always perceived to be constant). This theory cannot support Einstein's equations as absolute but only as a reference and guideline.

There is nothing to denounce this theory from stating that $\boldsymbol{\zeta}$ density could be distorted enough to achieve 0 density, which I would call a rip in the fabric of space and time. What exists in this rip is anyone's guess, but I would suspect that there is nothing that we can easily perceive and that there is no amount of shielding to protect against this environment. If it's possible that rips in space-time might be natural, they would be perceived not to exist since its perceived size would be 0. Now, the notion of achieving this rip would be artificial in which the artificial man-made generator of the rip and the observer would be inside the rip for it to be perceived to exist.

Repulsion

Complete and total repulsion between two bodies only occurs if the two bodies are exactly the same. In this scenario, all frequencies, amplitudes from the largest wavelengths to the smallest and smallest amplitudes to the highest will "cancel" each other out and repel the two celestial bodies apart. This is the repulsion effect observed in the same charged objects. Thus all concepts found in electric-statics are the same as those related to the concepts behind gravity.

Charge and Gravity is the result effect of Constructive and Destructive Interference of vibration ζ between objects of matter

Identical Objects Repel Each Other Completely

***

Different Objects Attract Each Other

Neutrality

A net system of particles/objects cancels any imbalance of attraction or repulsion in the collective system essentially making the system "neutral". This is achieved by increasing the quantity of particles/objects and decreasing the size of the particles/objects the further away from the system's core, essentially forming a cloud of decreasingly lower density particles/objects *majorly* nullifying vibration leakage from the system's core, though all neutral systems still leak in the form of higher frequency and lower amplitude compared to less neutral systems thus less dense systems. The following equations were notes written by me several years ago with regards to the concept of neutrality. I don't attest to their accuracy but to point out that they symbolize that the core mass of a system is equal to the sum of all the orbiting masses to achieve complete neutrality ($\mathbf{N=1}$) and if in any system this is not the case then that system is not completely neutral. For most of this theory, neutrality is factored into other equations by using the notions of mass and mass-density which is a direct representation of neutrality.

$$\boldsymbol{M_{core} \approx \sum_{0}^{n\ of\ orbiting\ particles} m_n}$$

$$\boldsymbol{V_{particle} = \frac{V_{core}}{1 + \frac{d^2}{r_{core}^2}}}$$

$$\boldsymbol{n_{particle} = \left(1 + \frac{d^2}{r_{core}^2}\right)}$$

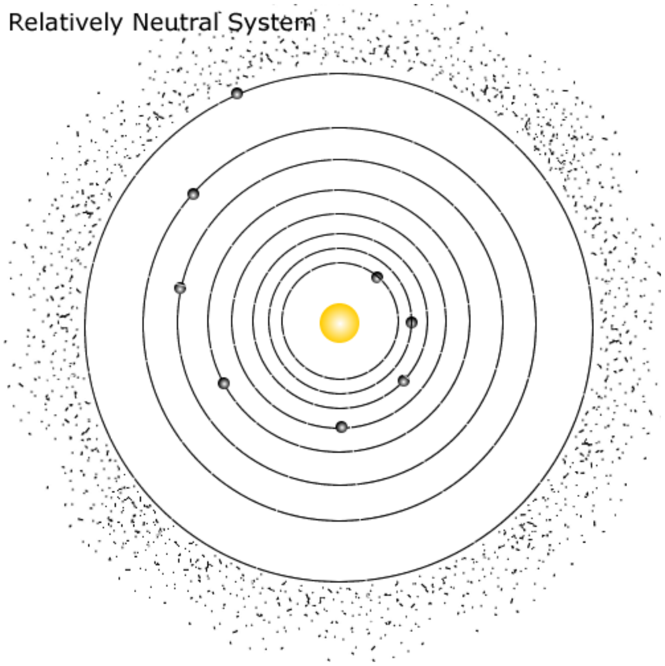
$$\boldsymbol{m_{particle} = m_{core}\left(\frac{V_{particle}}{V_{core}}\right)}$$

Volume equation is correct assuming the distance density of all particles and core remain the same.

$$\boldsymbol{\rho_{particle} = \frac{\rho_{core}}{1 + \frac{d^2}{r_{core}^2}}}$$

What this does is nullify all frequencies and amplitudes from the largest wavelength to the smallest the further away from the core until all frequencies and amplitudes are effectively "cancelled" or diminished. What remains on the outer edge of the collective system are the smallest particles/objects with very little attractive force produced by their vibration on $\boldsymbol{\zeta}$. In theory, no system can be 100% neutral, which is why different substances are different, because vibration will continue to escape the system at high frequencies and low amplitudes. If the systems were very neutral, then the systems would have to be very dense containing many objects in orbit and a dense system's core as well. As an example, the atomic element of Lead is much more neutral than Hydrogen as represented by this collective theory's concept of Neutrality.

We must notice that celestial and atomic neutral systems also take on certain standard configurations where objects orbit at specific radiuses. Why? What causes predefined configurations to take form? Much cosmic study has been placed into this question and the answer is that gravity predefines the configuration by coalescing the orbiting matter into certain orbits by infinite collisions and clumping of this matter until only a finite number of orbits with a single "large" mass per orbit forms (for the most part) in orbits that experience the least resistance along their orbital path. This is true, but does not answer why there is Asteroid Belt in our Solar System with many thousands of asteroids that never coalesced. It is my personal belief that all star systems possess their own Asteroid Belts defining a barrier between the inner system and the outer system and also possess an equivalent outer system asteroid belt, akin to our own Kepler Belt, defining the outer star system's rim. Since realities are relative, atomic systems also possess these features classified as clouds of electrons. This being said, it still does not explain why. If I were to hypothesis an answer, I'd say that the Asteroid Belt is caused by the shearing of space-time ($\boldsymbol{\zeta}$) between the inner Solar System and the outer Solar System where the inner system possesses small planetoids and the outer system possesses large, less dense, planetoids, and since the inner system orbits the Sun at a much faster velocity, this causes a shearing of space where clumping of matter due to gravity does not occur because the shearing/stretching /distortion of space-time ($\boldsymbol{\zeta}$) nulls this effect in these asteroid belts.



Solar System

Our solar system is *relatively* a neutral system akin to a Beryllium atom. The Sun is its core, the inner planets are denser than the outer planets and the asteroid field at the outer edge of the system contains asteroids of various sizes decreasing in size the further out they go. In concert, all planets, asteroid and dust collectively diminish the vibration amplitudes from the Sun and all other system objects such as the planets.

Atom

The atom is also *relatively* a neutral system. At the core, there is a large nuclei surrounded by what we *perceive* to be electrons near the core and further out it is surrounded by more loosely coupled “electrons”. Collectively, they diminish the “charge” of the nuclei and all other system particles.

Neutron

A neutron is an object that is of another shape in which the collective attraction and repulsion due to vibration between a neutron and any other object is for the most part equal. Thus the only shape a neutron can have is spherical or elliptical with a “solid” core incased within a system of decreasingly smaller objects the further away from the core (debris cloud). For example, a “shattered” planetoid can be perceived as a Neutron. Implying something that is shattered, especially a planetoid, strongly implies that destruction of that planetoid occurred. Envision for a second a “shattered” star incased in a large debris cloud heading towards our Sun. This relative “neutron” would destroy everything we know and permanently change the landscape of our Solar System. This is effectively what we do everyday in nuclear testing involving neutrons. Again, we have to take this seriously and understand the implications.

Proton

A proton is an object that is of another shape in which there is no cancellation of vibration, or very limited, having a “solid” core *not* incased within a system of decreasingly smaller objects the further away from the core. A proton is more “solid” thus more dense than a neutron. This would have the appearance that the neutron is larger in size, but in actuality, it is just less dense than the proton because of the cloud of smaller particles that surround it.

Matter Density

The density of matter is directly related to the neutrality of the quantum systems comprising the matter, thus neutrality is related to mass. This means that “heavier” atoms are more neutral due to the fact they have more electrons (quantum planets) and sub-electron particles orbiting the nuclei effectively cancelling more of the nuclei’s “quantum” vibration which allows the atoms to get closer to each other than those compared to helium of hydrogen. The denser the matter is, the more collective vibration the matter radiates effectively making it “heavier” in the preceding reality scale in regards to the effect of gravity.

Nuclear Reaction

As is known, in a nuclear reaction a neutron collides with an atom’s nuclei to break it apart which splits the nuclei creating more neutrons which collide with more nuclei and so on resulting in a very large cascade release of energy concluding in a nuclear explosion. What is actually happening in this collision of a very large particle, which we call a neutron (it has the characteristic of nullified attraction and repulsion due to the clouds of smaller particles that surround it) collides and chatters the nuclei of the atom which creates more objects similar to a neutron because of the debris caused by the collision incasing larger “shattered” portions of the nuclei as they speed away. Thus the resulting neutrons are actually small particle debris clouds encircling larger pieces of debris.

Ethics, Repercussions & Peace

A nuclear reaction is extremely destructive especially if we take into consideration that *realities are relative*. Assume for a second that the atom is being literally destroyed and the cascade of destruction from other atoms contained billions/trillions of little quantum sized observers in which their reality were these atoms, having direct and equal correlation to our own solar system. This nuclear destruction would possibly kill all of the quantum-size lives and civilizations in this cascade of destruction. The consequences of our actions are much larger than we have previously assumed. The bomb over Hiroshima destroyed more than human lives that day. It possibly destroyed an infinite number of quantum sized civilizations. This has enormous implications since our understanding of life is still limited especially with how all life relates to each other.

We must be responsible in our actions. The willingness to destroy our fellow man has far greater repercussions and can actually be destroying much more than we can possibly imagine. Nature, God, has given us a natural order for us to utilize in order to progress ourselves into a better understanding and enlightenment. Perhaps in the future, we will have the ability to determine if an atom or atoms contain quantum sized life which would allow us to *ethically* utilize nuclear reactions and the power it releases for our enlightenment and further understanding of the Universe and life. As far fetched as this might seem, it must be something we consider. To look at this from another angle, the secrets of the Universe are vast and the relation between the quantum and celestial might not be so different as we have thought. By unethically achieving quantum destruction by the willingness to inflict destruction at a macro/celestial scale, we could be *damning* ourselves by giving motive to other living beings to find reason in destroying our own civilization. We must remove hatred from our hearts and learn to achieve peace with each other if ever we are to progress, *or be allowed to progress*.

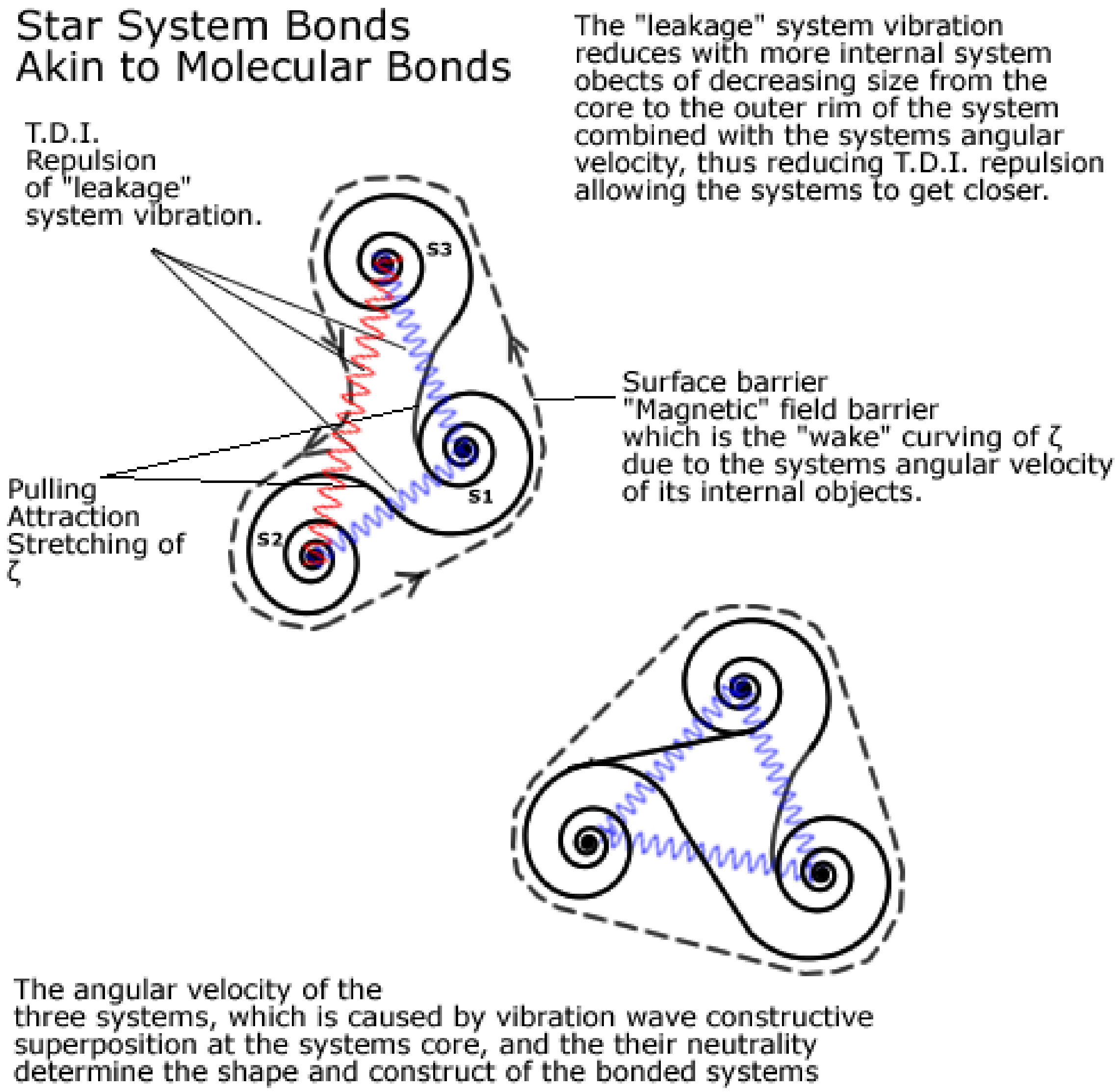
Just to bring this caution home, note again, that the Beryllium atoms and our Solar System bare remarkable relative similarities, and postulating that they are both equal except that one is in a quantum scale and the other is not. Now note that our nuclear scientists have and continue to use Beryllium in nuclear applications including weapons. With this in mind, just imagine the level of destruction being induced on a Beryllium atom's system by forcing neutrons to pass through it, possibly colliding with electrons orbiting the core of these atoms. Now imagine if some unimaginable larger super-celestial being in a reality above ours was using our cluster of similar star systems in their own nuclear applications. The level of destruction is unimaginable if a barrage of planetoids were forced by intelligent beings to pass through our star system. What if it is currently happening, and possibly has happened. I'll leave you with the question, where did the moon come from? Yes, use your imagination and explore the most and least likely scenarios but be opened minded to all versions and the implications of each.

Anti-Matter

What we perceive to be matter and anti-matter is really just the effect of gravity between two particles of the same mass but different density and radius. If they were exactly the same density and size they would repel each other. Essentially, anti-matter doesn't exist as "true" anti-matter. It can also be an inverse of an atom's structure, however an inverse of an atom's structure is still "matter" and would be extremely unstable because it would resemble Jupiter like planet orbited by several Stars. Such a structure can be conceptualized but again it would be very unstable.

Bonds & Surface Barriers

The concept of "surface" barrier is caused by dance of Total Destructive Interference between two different substances and their natural spin of the sub-current-reality (quantum) atoms in the exact same way celestial bodies repel and attract each other, especially in regards to the celestial bonding of star systems which are akin to molecular bonding.



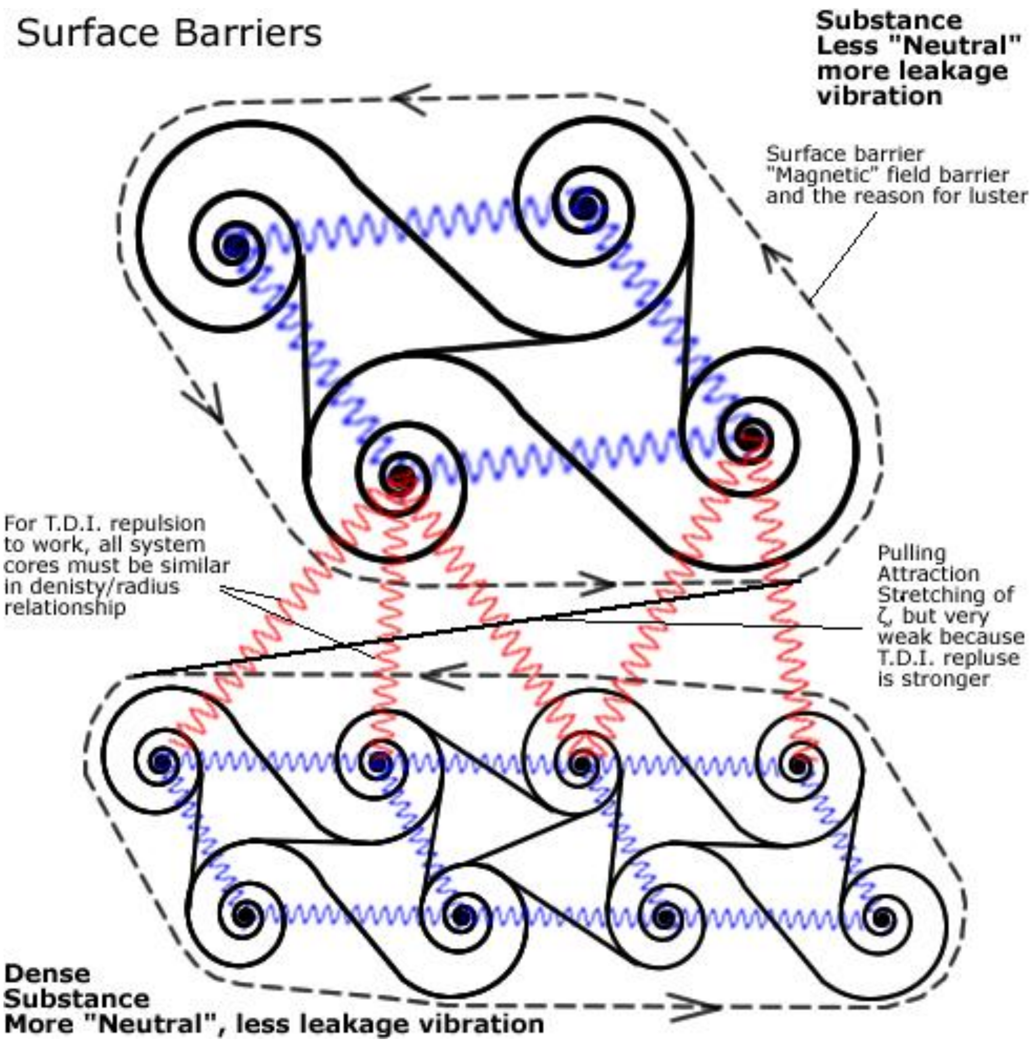
Star System Bonds Akin to Molecular Bonds

The "leakage" system vibration reduces with more internal system obects of decreasing size from the core to the outer rim of the system combined with the systems angular velocity, thus reducing T.D.I. repulsion allowing the systems to get closer.

Surface barrier "Magnetic" field barrier which is the "wake" curving of ζ due to the systems angular velocity of its internal objects.

The angular velocity of the three systems, which is caused by vibration wave constructive superposition at the systems core, and the their neutrality determine the shape and construct of the bonded systems

To understand the barrier between different “substances”, the following diagram helps clarify it.



To repeat what was mentioned before, what makes star systems and molecular systems different are that at the molecular level, the passage of time is extremely increased compared to celestial systems and even our own human scale. The exact cause of this is attributed to the conceptual notion of $\boldsymbol{\zeta}$ density and the invert time variant tau. Essentially, at exponential scales of reality, realities will look the same to each other with the only difference being that the passage of time for "smaller" realities exponentially increase, but to an observer in each reality, physics are the same, such as the speed of light "appearing" to be $c=3.0x10^8 m/s$ in each respective reality, but as viewed from a containing reality, such as the celestial scale (I'll consider this our own scale), the equivalent proportional scale difference in $\boldsymbol{\zeta}$ ripple amplitude resulting in a quantum observers perspective of their speed of light at the quantum scale, quantum "light" ($\boldsymbol{\zeta}$ ripples) of an exponentially higher frequency and infinitely small amplitude is much faster than our perception of light; very roughly $c=9x10^{16} m/s$.

Force Strength

The strength of all forces are dependent on the passage of time. According to Newton ($F=ma$) which has been validated many times over, the time portion of force is in the acceleration variable a. Acceleration is m/s^2 , thus using the rough Reality Scaler equation, $1m/s^2$ in our reality would be roughly $9.0x10^{16}$ m/s^2 at the quantum scale relative to our reality. Since all forces are due to vibrations and resulting curvatures, bending and distorting ζ, forces generated by quantum realms are much stronger relative to same forces at the celestial realm due solely to the increase in the passage of time at the quantum scale. Thus 1N (1 $kg.m/s^2$) generated by the effect of gravity would be $9.0x10^{16}$ N at the quantum scale generated by quantum effect of gravity ("attraction along the path of least resistant to vibration"). It is stipulated that electric force is the same effect as the effect of gravity just generated by less "neutral" quantum scaled particles via the notion of "leakage" vibration.

Reactions & Physical States

Vibration ζ interference expands the radius of electrons orbiting the nucleus, and the nucleus radius also, if the ripple amplitude is small enough to enter the atomic system. Expanded atomic radius with the existing estimated quantity of orbiting electrons allows more nucleus (nucleus core) ζ vibration of extremely high frequency and low amplitude to escape, pushing away other similar atomic systems and making the atom more reactive due to leakage vibration attracting non-equal systems, different atomic systems, into its own system, or closer to its own system forming a T.D.I.-spiral-shearing ζ bond with the other system in which "loose" electrons are exchanged. With enough "heat" vibration interference, the orbiting electrons could be vibrated out of the atomic orbit completely maximizing nucleus leakage vibration making the atom, or what's left of it (ion), very "reactive".

If the interfering ζ vibration has a very high frequency and a very low amplitude, the nucleus of the atom could also expand and release its internal electrons/particles, what we consider protons, breaking up the nucleus at worse case, and releasing the internal nucleus' extremely high frequency and low amplitude ζ vibration making it extremely reactive with atomic systems of different radius sizes, thus other types of elements, in which a nuclear reaction would produce a different substance, the reactive internal nucleus core of the disintegrated atom is slowly introduced to another atomic system in a process we call fusion. If both systems are introduced quickly, or violently, then a fission reaction could take place producing more than one substance after the reaction.

Potential Energy

All dimensional barriers, such as surfaces or energy barriers found in atoms are all related this “gravity dance” and it’s what we have perceived to be potential energy in its truest form and which is really a representation of our notion of negative energy or total destructive interference of $\boldsymbol{\zeta}$ vibration.

$$\boxed{\textit{Potential Energy} = \textit{“Negative” Energy}}$$

Equations

The same equations used for buoyancy in relation to fluid dynamics can also be used here, with some slight modifications.

Hydrastatic Pressure

Hydrastatic Pressure is the pressure experienced on all sides of submerged object in a fluid. In this case, the fluid is $\boldsymbol{\zeta}$ and the pressure experienced on all side of the object is due to destructive and constructive interference of vibrations permeating field lines or distortion of $\boldsymbol{\zeta}$ densities.

$$\boldsymbol{P = \rho h g}$$

$\rho = is\ the\ density\ of\ \zeta$
$h = depth$
$g = \frac{QM_{planet}}{r^2}$
$g = 9.8M/kg\ on\ Earth$

Buoyancy

Buoyancy is a *repulsive* force on an object produced by surrounding fluid, or in this case $\boldsymbol{\zeta}$.

$$\boldsymbol{F_b = -\rho g V}$$

$V = volume\ of\ object\ in\ \zeta$
$\rho = density\ of\ \zeta$

$$g = \frac{QM_{planet}}{r^2}$$
$$g = 9.8M/kg\ on\ Earth$$

The interesting thing here, is that **g** must always be related to a relative mass in order to calculate the forces and densities of $\boldsymbol{\zeta}$ involved. For example the net force of buoyancy is:

$$\boldsymbol{F_{net} = mg - \rho g V}$$

$m = mass\ of\ object$
$V = volume\ of\ object\ in\ \zeta$
$\rho = is\ the\ density\ of\ \zeta$
$h = depth$
$g = \frac{QM_{planet}}{r^r}$
$g = 9.8M/kg\ on\ Earth$

The following equation directly relates to the Buoyancy Matter Equation but corresponds to the density of matter surrounding an object of matter.

$$\boldsymbol{m_b = m_o \left(1 - \frac{\rho_f}{\rho_o}\right)}$$

$m_b = buoyant\ mass$
$m_o = original\ mass\ of\ object$
$\rho_f = density\ of\ surrounding\ fluid$
$\rho_o = density\ of\ mass$

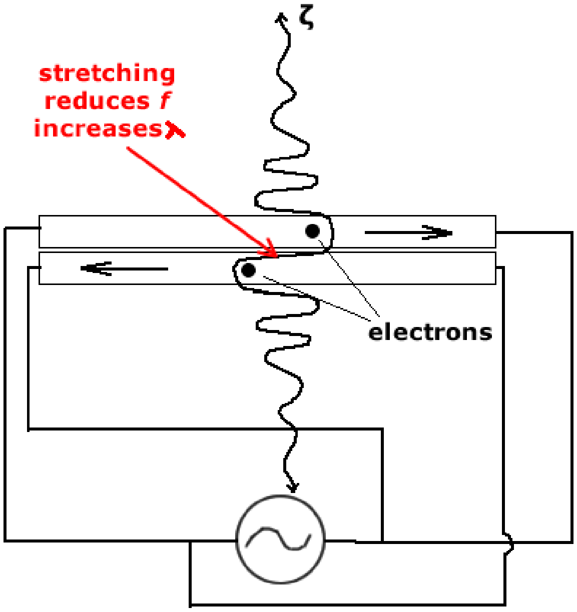
Applications

Different densities of $\boldsymbol{\zeta}$, due to frequency and amplitude, are the reason behind the space-time buoyancy effect. Interfering frequencies in $\boldsymbol{\zeta}$ is perhaps most difficult to attain, since $\boldsymbol{\zeta}$ is permeating with an endless multitude of frequencies, but is not impossible. One must superposition interfering frequencies and amplitudes in $\boldsymbol{\zeta}$ by changing the phase of vibration 180^{o}. Basically, vibrate two objects on top of each other with "some" distance between them at the same frequency but with at 180^{o} phase difference in the vibration wave. This method is rudimentary, but effective.

Another way is to alternate opposing currents in parallel wires at the same frequency, but phased 180° out of phase (T.D.I.). This is implementation of $f_1 = f_2$ with 180° phase difference is called ***Total Destructive Interference***. This by far isn't the only method to reduce the effect of gravity, but it is the only method to majorly remove vibration from $\boldsymbol{\zeta}$ and stretch it making it less dense.

To nullify the effect of gravity requires determining all the frequencies, amplitudes and phases that $\boldsymbol{\zeta}$ has on the surface of the Earth which can be a difficult, but $\boldsymbol{\zeta}$ has other properties that can be utilized to lessen the density of $\boldsymbol{\zeta}$ on the surface of the Earth and in space, such as the properties of stretching and of sticking to matter, especially in moments of acceleration, which allows matter to distort and stretch $\boldsymbol{\zeta}$. These methods are called the space-time distortion methods.

As mentioned before, opposing currents in parallel wires, depending on how they are setup can diminish the effect of gravity, but perhaps a simpler method with this concept is, the stretching of $\boldsymbol{\zeta}$ at any alternating current frequency to reduce the density of $\boldsymbol{\zeta}$ (loosening it). The lower the frequency of the alternating current, the more stretching is achieved, but due to the unknown Universal properties of $\boldsymbol{\zeta}$, there might be a limit on how low the frequency can be. Also, the distance the current travels before alternating back is very important. The greater the distance the electrons travel in the wire along with the optimal frequency achievable would give the best results in stretching $\boldsymbol{\zeta}$ and making it less dense.



Alternating Current
120VAC, 60Hz

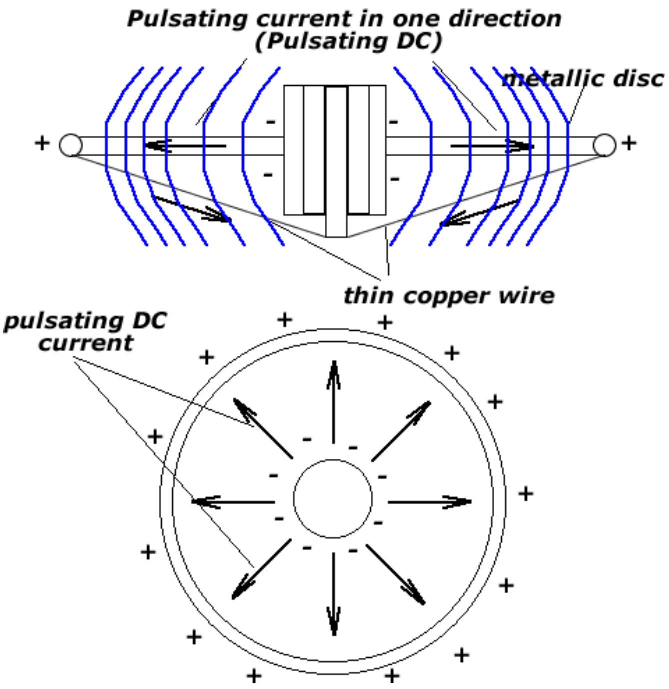
This method of stretching ζ coupled with an implementation of Total Destructive Interference at AC frequency of 60Hz will nullify the newly generated lower frequency ζ and create an area of lower density ζ. Its worth stating that personally I believe the act of actually ripping ζ (space-time density of 0) is very difficult.

Another device similar to the image above would be an inverted AC solenoid with opposing wiring symmetrically aligned parallel to each other.

Note: *Objects in constant motion distort ζ much less than during phases of acceleration, thus any implementation of nullifying gravity requires alternating current or a physical oscillation device which creates physical motion in constant acceleration or de-acceleration.*

Bending Light & Space Buoyancy Device

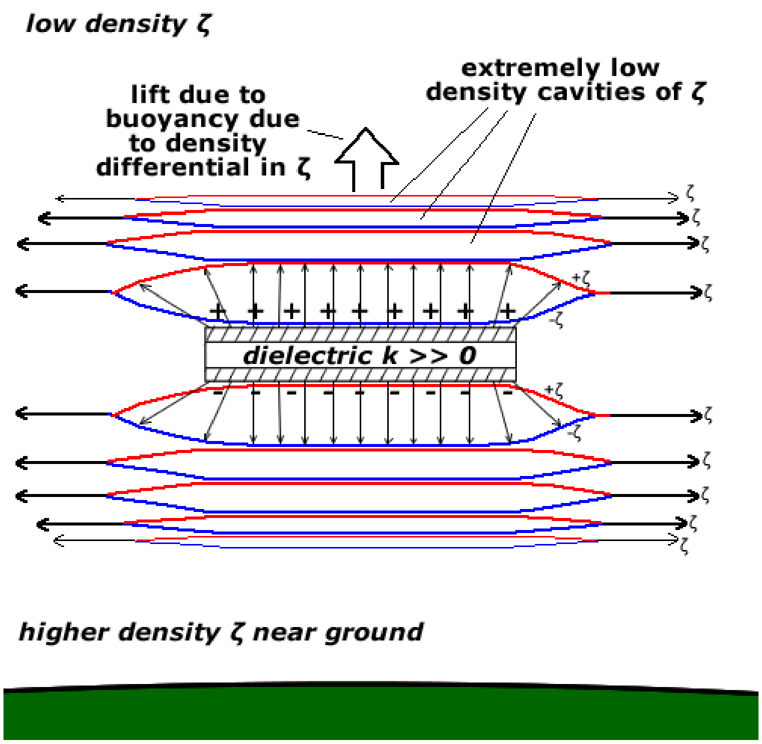
To produce less dense ζ, another method is to separate/distort it and create a cavity of less dense ζ. The concept here is to separate ζ in a symmetrical shape such as a circle or sphere.



This device in the image above would essentially distort space-time (**ζ**) and effectively bend light away and around its centre making this device ideally invisible or blurry to the observer outside the device. The outer perimeter of the metallic disc would be seen as a blur and the entire device would be seen as very small in comparison to itself when inactive. The voltage and current required here would be immense but achievable through conventional means. Inside the device, if there were occupants, their level of space-time density would be less than the density outside the device but not immediately outside the device. Immediately outside the device, due to distortion, the space-time density would be larger than further away (at some distance) outside the device. Effectively, the occupants would experience time at a slower pace than outside the craft which would make this device, along with several enhancements, ideal for interstellar travel at speeds faster than the speed of light (FTL). Yes, you heard me right. This is an FTL drive device.

Charged **ζ** Buoyancy

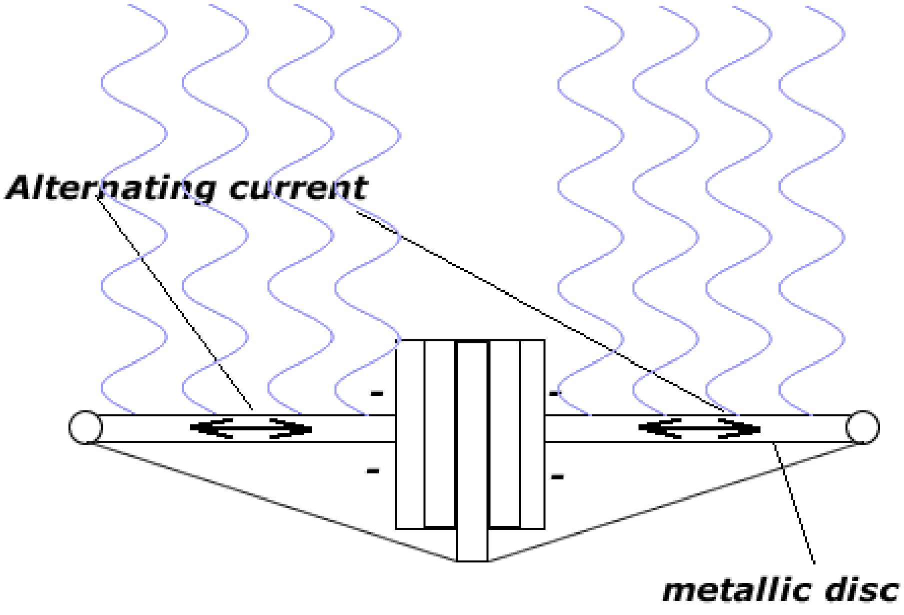
Yet another method is the conceptual "charge" duality of **ζ** to reduce its density. This is achieved by charging a symmetric metallic device with a high charge in which to "ionize" **ζ** into its two halves reducing its density. In actuality, voltage potential distorts **ζ** fundamentally especially if it is pulsating at nominally low frequency in order to achieve moments of acceleration and deceleration.


low density ζ
lift due to buoyancy due to density differential in ζ
extremely low density cavities of ζ
+ + + + + + + + +
dielectric k >> 0
- - - - - - - - -
+ζ
-ζ
ζ
higher density ζ near ground

This device in the image above would for all intents and purposes "floats" on denser ζ than what is found in the extremely low density cavities above and below the device, thus it would float away from the Earth's surface and into less denser ζ. The image shows ζ lines representing a conceptual notion of ζ "charge", the distorting of ζ is what the image is truly representing utilizing immense voltages, which is really a quantum scaled gravity effect.

Alternating Current ζ Density Distortion Buoyancy

Another device and perhaps the simplest to build, and very similar to the Bending of Light & Space-Buoyancy device mentioned earlier, would be an alternating current, symmetrically shaped metallic disc device that would vibrate ζ at a nominally low frequency over the surface of the disc. The following diagram represents this device.

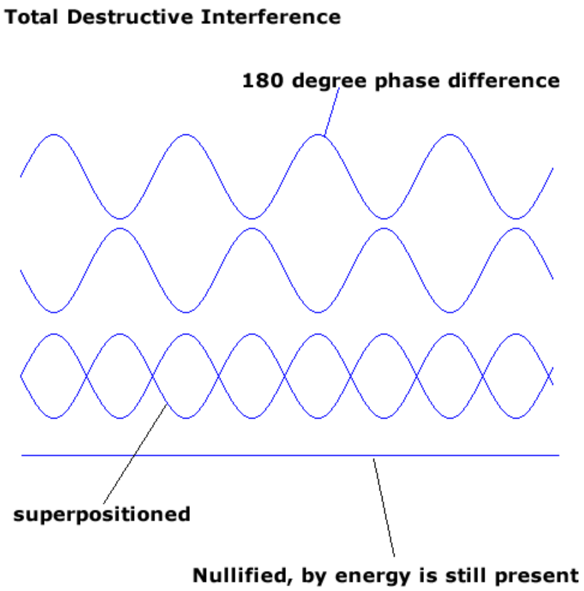


In this device, alternating current is truly just the oscillation of quantum particles in constant acceleration and deceleration above and below the craft's metallic disc area essentially making ***ζ*** less dense and allowing the craft to float. The oscillation of quantum particles over a flat area distorts ***ζ*** to a different density compared to natural static density of the surrounding environment such as a planet's surface.

All device applications mentioned until now produce antigravity which is really just low density ***ζ*** floating away from higher density ***ζ***.

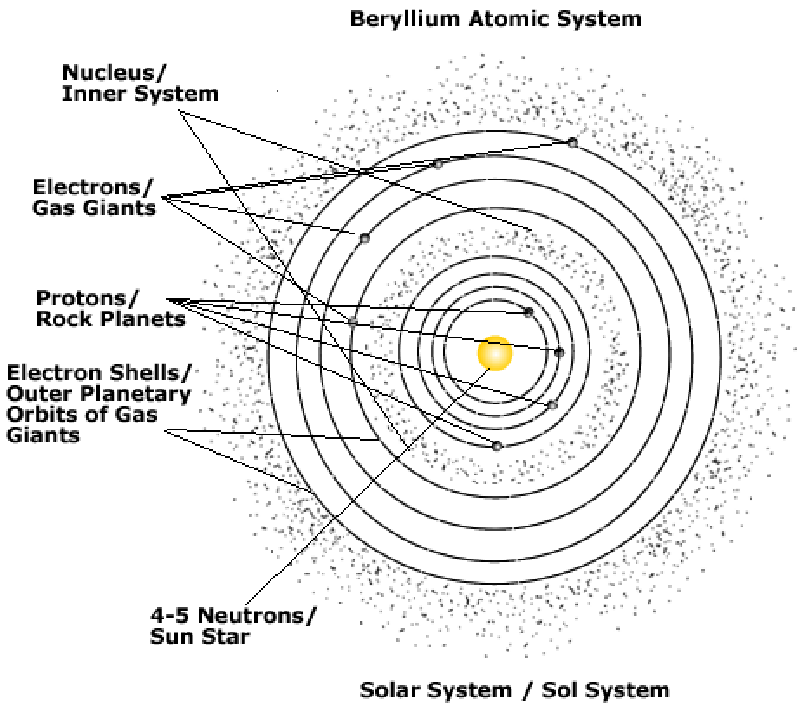
Total Destructive Interference

At this point, we're going to back track a little and talk about total destructive interference in relation to simple mathematics. T.D.I., as we all know by now, is the elimination of vibration in ***ζ***. Hence, the elimination of vibration is the elimination of energy. Total Destructive Interference has an anomalous characteristic such as vibration disappearing (no vibration visible), but returns into visibility a wavelength down its traverse path after two destructive waves collide.


Total Destructive Interference
180 degree phase difference
superpositioned
Nullified, by energy is still present

If the effect of gravity is due to vibrating $\boldsymbol{\zeta}$ with one waveform and then negating it with another waveform having a 180° phase difference would produce a negative effect to gravity, hence one form of antigravity and possibly the most difficult to achieve since all planets vibrate in an infinite range of frequencies and not specifically one frequency but the ranges or frequencies and amplitudes are different for different objects of matter.

15.0 Quantum & Celestial Relativity



Note: Neutrons and Protons of the inner system could be interchangable according to current perception and definition and what is actual.

Our Solar System and Beryllium atomic system have remarkable similarities, so much so that I postulate that our Solar System is a celestial relative of the Beryllium atomic system which would also state that our Solar System has atomic properties akin to the Beryllium atom but at much slower velocities of interaction since our passage of time is much slower than the passage of time in the Beryllium atom. Knowing this, than cosmological and quantum knowledge exclusive to both systems can now be interchanged and analyzed which also holds true between all properties at the celestial scale and the quantum scale.

Essentially, the nucleus of the atom is akin to the inner system of any star system. The problem with this notion is that we have conceptualized for a very longtime that the nucleus is a “solid” mass when in actuality, it is another rotational system of other quantum particles we have labeled neutrons and protons. The relativistic fact is that at the core of all atoms is a large single or binary quantum particle resembling a star but at the quantum scale. It is circled by what we have again miss labeled as protons, neutrons or even electrons. My inclination is that these inner system objects, akin to rock planets such as Mercury, Venus, Earth and Mars, are better suited to be labeled inner-system electrons, or possibly neutrons due to their ability to absorb ζ vibrations at higher amplitudes much more readily than gas giants. Also for the reason that these rock planets have a higher frequency and amplitude difference between them and their star. The reason for gas giants inability to absorb ζ vibrations as the ones produced by their star and in comparison to smaller rock planets even though they are much more massive relatively is that gas giants are less dense at their surface and the ζ vibrations they produce are in the amplitude range or much more closer to the amplitude range produced by its star. We can label this effect as buoyancy due to less ability to absorb photonic star light (visible and invisible) or repulsion due to proximity to total destructive interference between two sources of vibration (gravity sources) following the laws of current wave theory.

It is also another postulation that the asteroid belts, both the Asteroid Belt and the Kepler belt of our Solar System is a natural phenomena in all star systems and is relative to the shell surface of the nucleus and electron cloud which is not necessarily the cloud we have been able to capture pictures of. Nonetheless these asteroid belts, or particle belts are a natural phenomena to the Universe and act as a barrier, possibly at a ζ vibration harmonic node or due to space-time shearing, to neutralize the star/nuclei ζ vibrations to the outer systems. Remember, celestial observations and physics can also be applied to the quantum scale in order to explain particle clouds. Perhaps, atomic systems can spontaneously transform from one atomic type to another atomic type by invisible quantum collisions between an orbiting electron and some foreign quantum particle shattering the electron completely and forming a particle belt/cloud. This would still be classified as a nuclear reaction of sorts. Again, the theory is that these belt/clouds are natural and must exist for *natural* stability.

Now there is one more postulation with regards to the nucleus and inner star systems. The nucleus of an atom, through our experimentations, may appear to be solid and the postulated reason for this is that the linear rotational velocities of these inner systems are moving at the speed of light, *or beyond*, at which point we no longer perceive a rotational particle system but a solid mass of which we have assumed to be comprised of particles we have miss labeled even though our experiments and applications work using our current assumptions because mislabeled particles are still real, but the structure of the nucleus system is wrong.

Celestial Objects & Quantum Particles

Celestial objects and quantum particles have direct relation to each others physical properties. The ratio of mass volume is equivalent between relativistic quantum and celestial counterparts at a difference of S. This ratio is currently classified as mass density, but relatively, this ratio also takes into account the notion that mass accounts for the quantity of sub-structure particles in an object. For celestial objects the substructure particles are atomic/quantum particles and for quantum particles they are sub-atomic/sub-quantum particles and so on infinitely.

Celestial & Quantum Earth

Radius

$$r_e = \frac{r_E}{S}$$

$$r_e = \frac{6.378x10^6 m}{1.104x10^{23}} = 5.777x10^{-17} m$$

Mass

$$\rho_e = S\rho_E$$

$$\frac{m_e}{\frac{4}{3}\pi r_e^3} = S\frac{m_E}{\frac{4}{3}\pi r_E^3}$$

$$m_q = m_o\left(\frac{1}{S}\right)^2$$

$$m_e = \left(5.98x10^{24} kg\right)\left(\frac{1}{1.104x10^{23}}\right)^2 = 4.906x10^{-22} kg$$

Celestial & Quantum Sun/Star

Radius

$$r_s = \frac{6.96x10^8 m}{1.104x10^{23}} = 6.304x10^{-15} m$$

Mass

$$m_s = \left(1.99x10^{30} kg\right)\left(\frac{1}{1.104x10^{23}}\right)^2 = 1.63x10^{-16} kg$$

The quantum mass equivalent for the Earth and Sun seems low compared to currently measured mass for electrons, protons and neutrons particles. This can be due to several reasons, first of which is due to incorrectly calculated Earth and Sun masses due to a lack of understanding around the effects of **ζ** vibrations which results in the effect of gravity and charge. One must also compensate for the mass equivalent of a *stationary* quantum particle, but the actuality is that all quantum particles are full of energy, which translates into accelerated time. Naturally particles full of kinetic energy would appear to have more mass if using current energy to mass equations. The bottom line is that all calculations, estimates and even measurements must be revisited. The calculations in this paper are only a guide in order to follow the theories postulated here. Due to my own limited resources and proper measurements, deriving perfect calculations are a difficultly which I contended with many sleepless nights while still making living in my unrelated profession.

16.0 Inertia the Stickiness of ζ

Space-time (ζ) has an additional characteristic or property that is required for the effect of gravity to happen. This characteristic will be explored, again, using the notion of space-time (ζ) tensors.

When ζ interacts with matter (passing through it) it "naturally" begins to vibrate which "collides" and "cuts" through atomic/quantum particles and having the effects of splitting into negative (-) and positive (+) ζ (both of which are conceptual tools), breaking exposing ζ end points that "need" to reattach and will but possibly through denser, higher frequency, lower amplitude viscosity tensors (ζ_v) essentially locking itself more tightly with objects of matter.

As the object moves, ζ passing through it will break, split, and reattach with the higher possibility of broken ζ reattaching into closed-loop ζ_o. As the object moves faster, more closed-loop ζo will form effectively adding to the mass of the object "possibly". How much? It will have to be measured. Also, moving objects will also have a higher possibility of adding more energy to their own dimensional cluster. The point here is that this interaction of ζ passing through matter is "sticky". The stickiness of ζ is more pronounce as an object starts moving or is in acceleration.

$$\boxed{Inertia \propto Stickiness\ of\ \zeta}$$

The longer an object is at rest, the more ζ will "tighten" itself to the quantum internals of matter, especially with charged bonds, making movement (initial movement) more difficult. This initial movement will bend ζ externally outside the object more than if the object was already in motion. Essentially, and a bit humorously, laziness could be actually physical and related to stickiness of ζ.

If the object is in constant acceleration, the bending of ζ externally outside the object will be continuously greater than an object at a constant velocity (v). Thus objects in acceleration distort space-time (ζ) much, much more than an object at a constant velocity. It is very possible that constant velocity through space-time does not distort it at all, only phases of acceleration and deceleration between different velocities and kinetic energies which is what I believe. This all leads to the following notion of cutting force.

Cutting Force

The laws of Inertia to Momentum had to be revisited due to the postulations stated in this theory, thus a new law of Inertia and Momentum is:

An object at rest or in motion in ζ will remain at rest or in motion unless acted upon by an external force which space-time (ζ) will resist resulting in reduced mass, size, and relative increase in the passage of time after acceleration due to the force applied.

To explain the mechanism behind Inertia and Momentum, one must realize that $\boldsymbol{\zeta}$ affects all movement since it is the medium that all things move in. With regards to Momentum, an object at a constant velocity will also be affected by cutting $\boldsymbol{\zeta}$ but this effect is almost completely insignificant at low velocities and hugely significant at velocities near our perception of the speed of light (c) or of enormous acceleration in $\boldsymbol{\zeta}$. It also depends in the composition of the object and its characteristics. For example, an object with high luster will cut through $\boldsymbol{\zeta}$ and experience little “stickiness”. Same can be said for small objects, since to a small object the density if $\boldsymbol{\zeta}$ would appear less. This also holds true for an object that is spinning which is continuously cutting $\boldsymbol{\zeta}$ and not allowing it to stick. Planetary spin is *partially* due to the fact that $\boldsymbol{\zeta}$ is “thicker” thus “stickier” on the planet’s side facing its star than the less “thick” $\boldsymbol{\zeta}$ on its dark side. It is basically “rolling” on $\boldsymbol{\zeta}$.

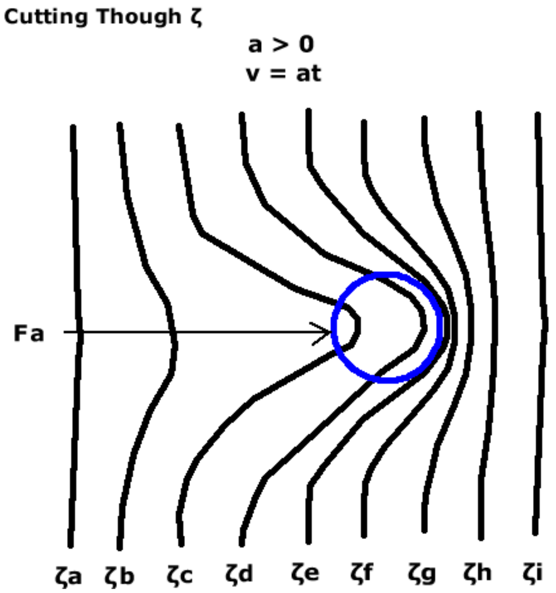
Bending of $\boldsymbol{\zeta}$ at any density and the force against it is proportional to the acceleration, velocity and density of objects of matter cutting through ζ.

$$\boldsymbol{F_c \propto a}$$
$$\boldsymbol{F_c \propto v}$$
$$\boldsymbol{F_c \propto m}$$
$$\boldsymbol{F_c \propto d}$$
$$\boldsymbol{F_c \propto V}$$

$$F_c \propto \frac{m}{V}$$
$$F_c \propto kVd = km$$

F_c=*Cutting Force*
a=acceleration
v=velocity
d=density
m=mass
V=volume of mass

As it has been stated, concepts of mass and density are both dependent on ***ζ***. If a region of ***ζ*** is "thick" then the more difficult it is for an object to relatively start moving, but this is also inversely proportional to the objects size which is related to it's perception on the density of ***ζ***.



As an object cuts through ***ζ***, the ***ζ*** in front of it will compress, thus denser, and the ***ζ*** in the back will decompress, thus less dense.

Time is faster in front of an accelerating object and is slower in the back of the object.

The total force against an object's movement is the sum of all forces against it as it cuts through ***ζ***.

F_c = *Cutting Force = Force of Inertia*

Cutting force only affects objects in acceleration and in post acceleration velocity phase, meaning once an object has accelerated to a certain velocity, the ratio of the object’s mass to **ζ** density is still not at its natural state in which to allow perpetual momentum velocity due to the ***Universal Rate of ζ Permeation*** through matter in order for the matter to be in motion and to perceive the density of space as it once did when it was relatively in stationary or natural motion. The object of matter after an acceleration phase, which distorts **ζ** greatly and experience resistance classified as the notion of mass inertia, would still experience **ζ** resistance to the velocity it accelerated too for a moment of time in which the mass and size of an object in motion decrease in order to perceive **ζ** density as it once did at relatively “stationary/stand-still” motion such as in orbit around a planet. How long this takes is unknown to me, but I postulate that the observer will perceive it as a moment of distortion, disorientation and possibly also experience it as pain depending on the level of acceleration which could result in death.

All forces against movement is directly proportional to the mass of the object and the density of **ζ** surrounding it or the density of **ζ** it will pass through.

$$\boldsymbol{F_{applied} = ma\frac{\rho}{\rho_o}}$$

$$\boldsymbol{a = \frac{F_{applied}}{\left(m\frac{\rho}{\rho_o}\right)}}$$

$F_{applied}$ = applied force against an object
a=acceleration
ρ= distorted ζ density
ρ_o= natural ζ density
m=mass

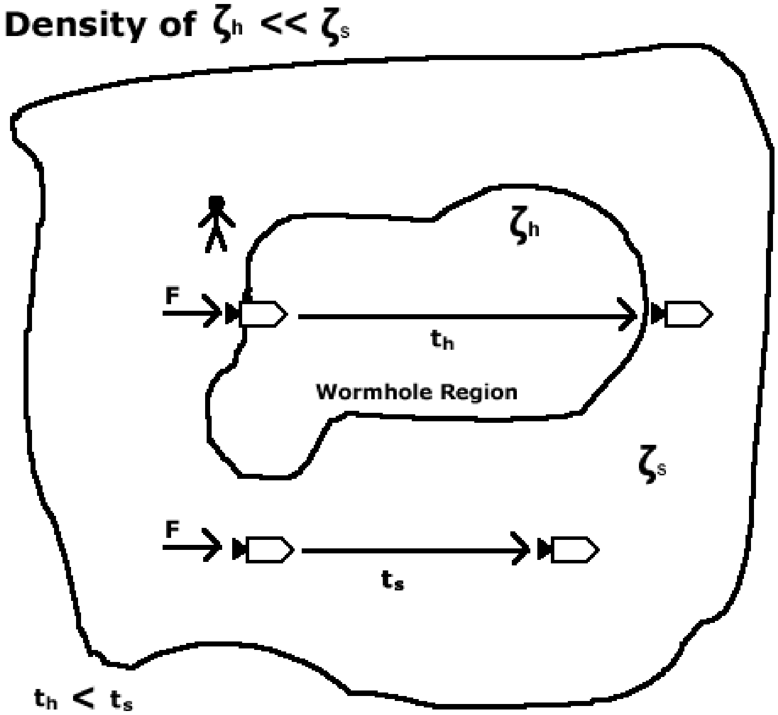
The similar notion can be applied to Momentum as such:

$$\boldsymbol{P = mv\frac{\rho}{\rho_o}}$$

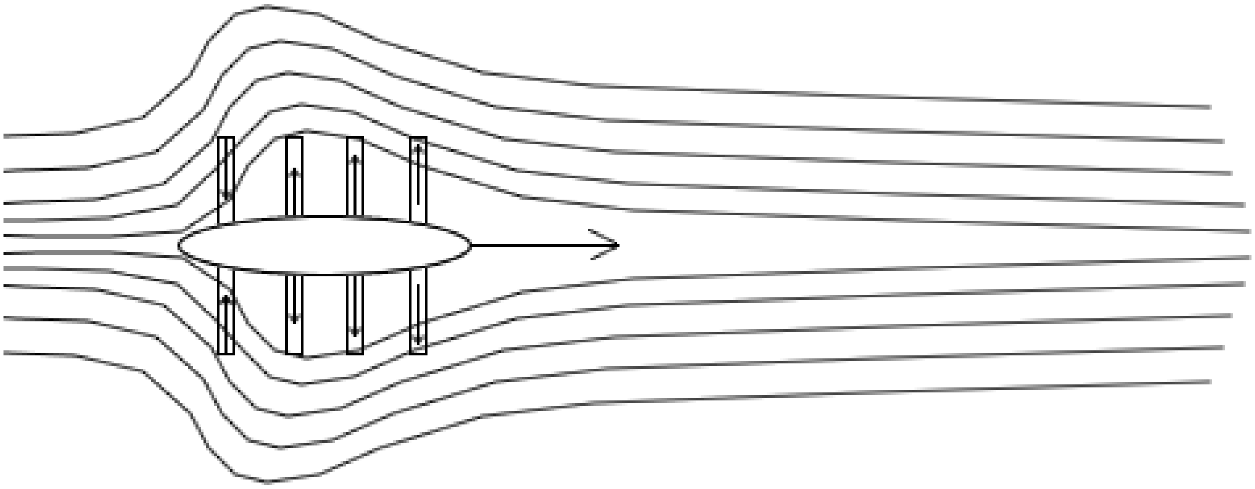
$$\boldsymbol{v = \frac{P}{\left(m\frac{\rho}{\rho_o}\right)}}$$

P=momentum
v=velocity

As a visual example of this concept of Cutting Force or Inertia, the following diagram represents what would happen if a spacecraft travelling at a constant velocity through a specific density of ζ and then suddenly encounters a large region of very lower ζ density which could be speculated to be natural depending on possible immense Universal distortion waves. The spacecraft would experience an enormous jump in distance across the cavity of low density ζ and then continue on at its previous velocity. To the observers in the spacecraft, it is possible they would not experience an acceleration but once the jump was complete, their instruments would notice that they had travelled much farther even though they appeared to be travelling at the same velocity. This lower density, possibly natural, region of ζ can be considered a *wormhole*.



As a visual example of this concept of Cutting Force or Inertia, the following diagram represents a postulated ζ density distortion device using conventional electrical or even mechanical technology to bend space in front of the device to lower density and behind to increase the density resulting in directional velocity and in ideal implementations enormous velocity jumps without killing the passengers due to “natural” inertia. Essentially inertia due to acceleration would be null.



So taking all this into consideration the following equation is relevant in regards to velocity jumps.

$$F_{net\ applied\ force} = F_{applied} - F_{cutting}$$

Assuming that the velocity of light (c) is the maximum velocity possible (relative), then it can also be postulated that c is also a maximum acceleration limit for the force applied to the object and is equivalent to Cutting Force (F_c) at this acceleration.

$$@\ a = 3x10^8 m/s^2, \qquad F_c = F_{applied}$$

For example, a diver jumping from 20 feet and another from 2000 feet would experience the impact of hitting the water differently. The 20 foot jumper would not be injured from the impact of hitting the water, but the 2000 foot jumper could be killed upon hitting the water. Why? Because the velocity of the second jumper is much greater upon hitting the water than the first jumper and the displacement of the water is not fast enough for the second jumper to experience an easier submergence into the water. Essentially, the second diver would not notice any difference between diving into water or on solid ground from 2000 feet. Space-time density works in the exact same way in the form of Inertia. If an applied force to an object is $F=mc_a$ (0m/s to c in 1s) then the instantaneous resistance force against movement is equal to the applied force.

$$F_{net} = F_{applied} - F_{cutting}$$

$$F_{net} = ma - ma\left(\frac{a}{c_a}\right)$$

Acceleration limit is

$$c_a = \frac{c - 0}{1s} = 3.0x10^8 m/s^2$$

Therefore cutting force is

$$F_{cutting} = ma\left(\frac{a}{c_a}\right)$$

Again, these equations are just guidelines for applications.

Cutting Force Implications – Light Speed Jump

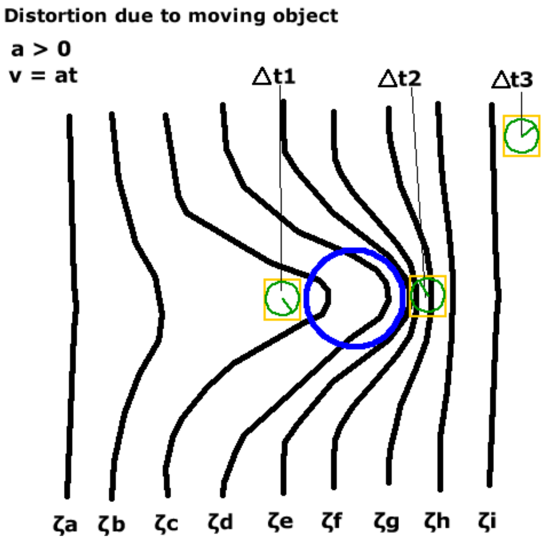
This means that if you distort the density of ζ on the surface of the planet to produce a lower density, the effect of Inertia will be reduced. If Inertia is eliminated completely, there is no resistance to acceleration and any object will *instantaneously* jump to any location in the Universe when acted upon by a very small external force.

The methods to reduce or nullify ζ frequency was already discussed before. Total Destructive Interference was the only method to completely nullify vibration in ζ, and the most difficult, but not by far the only method to reduce or increase ζ density. Symmetric accelerative motion of matter can also reduce or increase the density of ζ which includes the utilization of conventional electric technology

17.0 Distortion

It is well known electric current (I) produces a magnetic field, which means it is bending ***ζ*** to produce magnetic ripples (same as photon) which are "charged" ripples in ***ζ*** by separating and collapsing +***ζ*** and –***ζ*** (both conceptual tools) as the electric current oscillates from an AC voltage source. Thus electric current cuts and distorts ***ζ***.

All objects cutting through ***ζ*** distort (bend) it including, and perhaps especially, "charged" atomic and quantum objects. Objects accelerating distorts it more since they are in transition from lower to higher density ***ζ***, or vice-versa, and also due to the time it takes which is due to the Universal Rate of ***ζ*** Permeation through "matter". How can this be proven? It can be proven simply by clocking the time differences in an accelerating object from three different locations. All three clocks are synchronized and then one clock is attached behind the object that will accelerate, the next clock will be attached to the front of the object and the third clock will be left stationary away from the object's path of acceleration. The object is then constantly accelerated for sometime and then made to come to a stop. The times on the three clocks are taken and subtracted from the initial setup time and compared to each other.



Note: *Pulsating acceleration is just as effective as constant acceleration and can be produced more effectively in a laboratory.*

Distortion is the ratio of difference between timeframes behind and in front of a moving object to a stationary timeframe. Thus:

$$D = \psi = Distortion$$

$$\psi = \frac{\Delta t_{front\ or\ back}}{\Delta t_{stationary}}$$

$$D = \psi = c_o\left(1 - \left[\frac{F_{applied} - F_{cutting}}{F_{applied} + F_{cutting}}\right]\right)$$

$$D = \psi = c_o\left(1 - \left[\frac{ma - ma\left(\frac{a}{c_a}\right)}{ma + ma\left(\frac{a}{c_a}\right)}\right]\right)$$

$$c_o = 3.0x10^8, \qquad c_a = 3.0x10^8 m/s^2$$

In relation to a moving object:

$$\psi \propto F = ma = m\frac{d^2d}{dt^2}$$

$$\psi = \phi_a m\frac{d^2d}{dt^2}$$

$$\psi \propto p = mv = m\frac{dd}{dt}$$

$$\psi = \phi_v m\frac{dd}{dt}$$

$$\psi_{\text{acceleration}} > \psi_{\text{velocity}}$$

As distortion relates to mass where c_o is the maximum distortion level possible, the following equation would represent the effect on mass where D is a relative distortion value as perceived from "non-distorted" space-time ($\boldsymbol{\zeta}$).

$$\boldsymbol{m_q = \frac{m_o}{\left(1 + S\left(\frac{D}{c_o}\right)\right)^2}}$$

If relativistic distortion did not exist, then distortion would not exist and this would be apparent through non-existence of time-dilation inside an apparent space-time ($\boldsymbol{\zeta}$) distortion region due to acceleration and anything other than 0 proves distortion of $\boldsymbol{\zeta}$ exists and can be manipulated.

$$\boldsymbol{\Delta t_{behind} = \Delta t_{infront} = \Delta t_{stationary}}$$

$$\boldsymbol{\psi = 0}$$

Note: *Relativistic distortion is related to Einstein's relativity concept, but it's not the same. This theory's relativity has no speed limit in the form of* c*.*

Distortion is directly proportional to Cutting Force. The greater the cutting force the greater the distortion.

$$\boldsymbol{\psi \propto F_c}$$

$$\boldsymbol{\psi = kF_c}$$

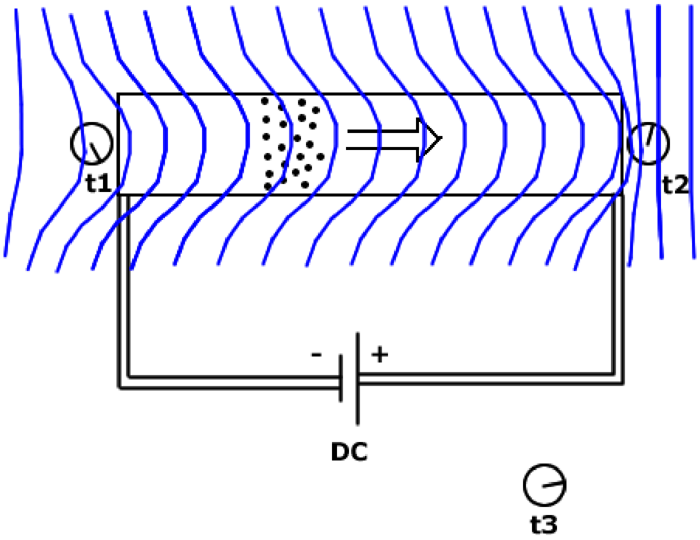
Distortion does not exist, or is very minimal, if an object has been travelling at a constant velocity even if it is near $\mathbf{c}$, but what must be understood that is that for anything to reach velocities near $\mathbf{c}$ it requires acceleration and every time acceleration takes place, distortion occurs and every time distortion occurs, it effects the objects size and mass. With this in mind, it can also be stated that constant velocity possibly distorts space-time ($\boldsymbol{\zeta}$) as an object at velocities near $\mathbf{c}$ pass relative stationary objects.

$$\boldsymbol{\psi_{\text{acceleration}} \gg \psi_{\text{velocity}}}$$

Electric Distortion

Distortion in DC electricity is proportional to voltage and current and inversely proportional to resistance in the conducting wire.

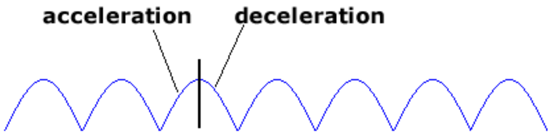
Electrogravity Distortion



$$\psi \propto V$$
$$\psi \propto I$$
$$\psi \propto \frac{1}{R}$$
$$\psi \propto f_{DC\ Pulse}$$

$$\boxed{\begin{array}{l} \mathrm{D} = \psi = \phi_{DC}\dfrac{IV}{R} \\ \phi = conductor\ distortion\ coefficient \end{array}}$$

Electric current, after a short acceleration burst, travels at a constant velocity in the conducting wire. Since it has been previously postulated that distortion in ζ is less with objects travelling at a constant velocity and more with objects accelerating, thus pulsating DC current to attain greater distortion is logical.



Pulsating DC Current

$$D = \psi = \phi_{DCPulse} \frac{IVf_{DCPulse}}{R}$$

$\phi = conductor\ distortion\ coefficient$

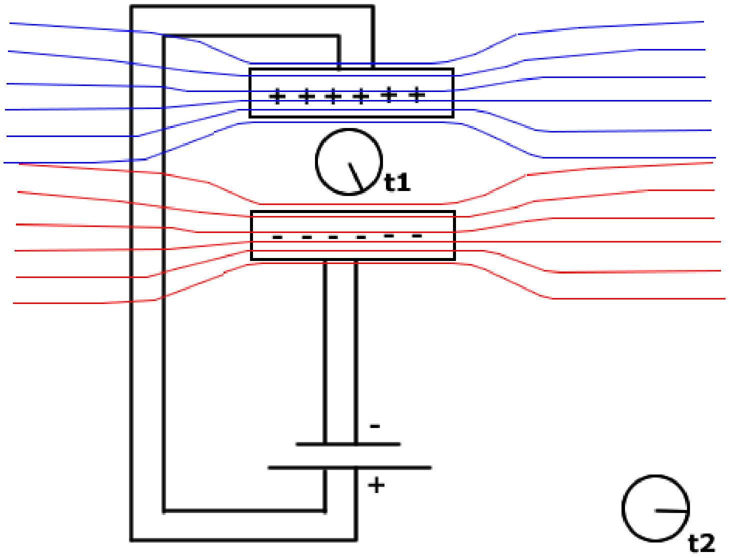
Distortion in AC electricity is also proportional to voltage and current and inversely proportional to resistance in the conducting wire. All coefficients have to be derived experimentally in a controlled environment.

$$D = \psi = \phi_{AC} \frac{IV}{R}$$

$\phi = conductor\ distortion\ coefficient$

Distortion due to charge potential is produced differently than previous methods.

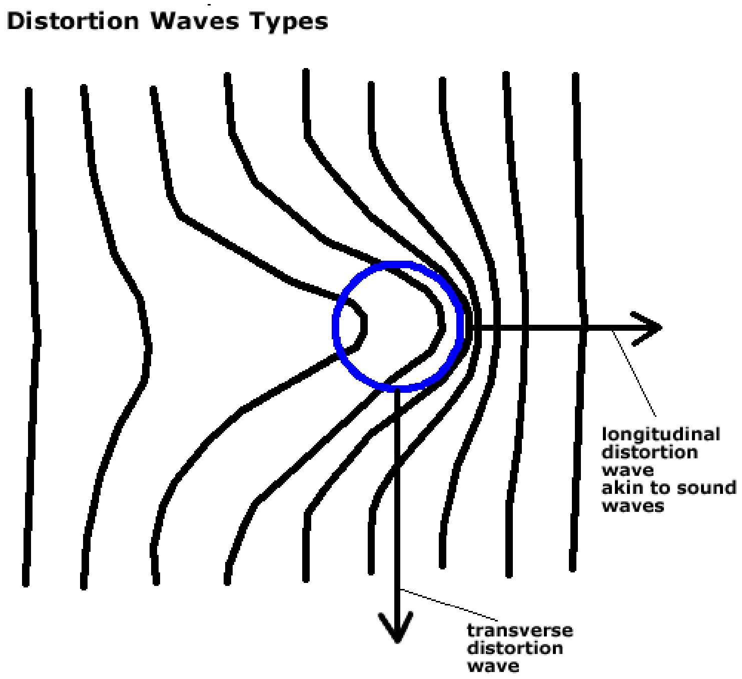
Electric Charge Potential Distortion



$$\psi = \phi_q V$$

$$\phi = charge\ potential\ distortion\ coefficient$$

Distortion Waves


Distortion Waves Types
longitudinal distortion wave akin to sound waves
transverse distortion wave

Distortion of ***ζ*** produces two types of wave patterns: longitudinal and transverse, each of which interact and behave differently. For example, the effect of gravity is theorized to be produced by transverse wave pattern interacting with another transverse wave pattern produced by the object(s) atomic systems rotating at near or at ***c***.

Distortion Shielding

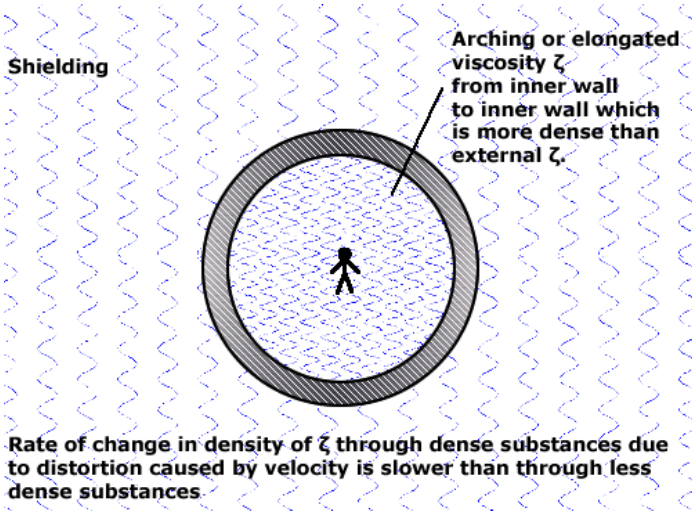
Until now, we have only discussed the effect of different densities of ***ζ*** as it directly affects the observer at full exposure and has direct relation to the rates of entropy and the effect of aging which can be accelerated by increasing the rate of energy sharing between the observer and his environment such as passing through different densities of ***ζ*** such as decelerating and accelerating at a continuous rate. How can we stop this effect? We can stop it by utilizing shielding technology. Shielding is the nullification of changes in density of ***ζ*** to the observer.

Arching viscosity tensors are the natural effect of viscosity ζ of similar matter elongating and cross a different substance of a lower density ζ (the diagram below represents this effect). These elongated viscosity ζ are nominal ζ, but vibrating at a higher frequency after passing through a higher dense substance. This means that substances of different densities can change the frequency of ζ as it permeates through it. This is a very simplified explanation of this effect since ζ is the fabric of everything and has much more intricate relations in regards to any concept of matter. Basically this effect acts as a buffer between densities, and the denser the shielding substance the greater the buffer. Though all ζ densities change over "time" eventually effect and change matter, some substances take longer to change. These substances are naturally good for shielding, but they also can adversely affect the observer due to their higher density ζ especially if the observer is incased in this shielding.

Luster is another form of shielding. Effectively, spinning a spherical shield cuts through ζ and does not allow it to "stick" which minimizes the effect of distortion due to a moving object. Inside the shielding, the density of ζ again depends on the type of substance, but effectively, by spinning a low density spherical substance at a relative, calibrated nominal velocities will maintain the density of ζ at a constant inside the shielding. Again this is simplified. Luster in metal is caused by concept of electromagnetic fields due to many rotating electrons at the surface of the metal atom, thus luster can also be caused by electromagnetic fields on a much larger scale.

Yet another method, and perhaps the most effective, is to build an anti-distortion device. This device would be used to counteract the effects of artificial distortion generators. It is important to note here that symmetry with any distortion device is very important.

It has been discussed prior, all matter vibrates ζ which affect all other matter and all matter vibrates at different frequencies related to its density and its structure which interrelates with the stickiness characteristic of ζ. A more dense substance will be "stickier" than a less dense substance which can cause more distortion once in motion. A moving object cutting through ζ distorts it causing ζ to be denser in front and less dense in the back.



Shielding

Arching or elongated viscosity ζ from inner wall to inner wall which is more dense than external ζ.

Rate of change in density of ζ through dense substances due to distortion caused by velocity is slower than through less dense substances

18.0 The Principles of Reality

The following is a concise summary of principles governing Universal reality described throughout this paper. There are currently 42 principles.

Principle 1.0

At exponentially proportional differences in dimensional magnitude realities are relative equals, separated by different levels of conscious perception barriers.

Principle 2.0

Reality is composed of relatively smaller scale realities where the barrier of perception between realities is the scale difference of S and **Δt** at the value of **c** (3.0x10^8s), or multiple, which are different densities in space-time (***ζ***) of which celestial and quantum realities are relative equivalents.

$$\boldsymbol{S = \frac{r_{Inner\ Solar\ System}}{r_{Be}\left(\frac{r_{Inner\ Solar\ System}}{r_{Outer\ Solar\ System}}\right)}}$$

$$\boldsymbol{S = 5.625x10^{22} = c_o}^{2.68}, \qquad \boldsymbol{c_o = 3.0x10^8}$$

$$\boldsymbol{2.68 \approx e = 2.718281828459}$$

$$\boldsymbol{S = c_o{}^e = 1.1046x10^{23}}$$

Principle 3.0

Relative densities in space-time (***ζ***), at a difference of S and **Δt** at the value of **c**, will have celestial to quantum interactions, properties and characteristics as observed from either relative space-time (***ζ***) density or vice-versa.

Principle 4.0

Consciousness exists in all realities; realities are perceived by consciousness.

Principle 5.0

Consciousness creates and transcends reality; all that is required is the will to find the means to do so.

Consciousness and subconscious thought influences space-time (ζ). This influence moves atomic and quantum particles as perceived relatively to the conscious entity such as in a mental instruction, which is a conscious thought in order to move a limb via the brain and nervous system.

Principle 6.0

The seemingly random natural and unnatural celestial events are an infinitesimal snapshot moment in a conscious or subconscious thought of a super-celestial entity of which part or the whole of the perceivable Universe is physically a part of separated by a perception barrier of S times bigger and Δt at c times slower relative to our reality point of reference.

Principle 7.0

Density of space-time (ζ) is perceived by the observer to always be constant even though an observer might pass through or exist in different levels of space-time (ζ) density thus space-time (ζ) is infinitely homogenous where the observer's relative size and passage of time (Δt) in a certain level of space-time (ζ) density is what is perceived differently and is a natural barrier of perception as observed by a second observer from another different level of space-time (ζ) density.

Principle 8.0

Magnetic fields are the acceleration distortion region (barrier) between two or more densities of space-time (ζ) caused by distortion due to accelerating objects.

Principle 9.0

As an object approaches c due to acceleration, the Universe's relative size increases by S as observed from the object.

As an object accelerates away from a "stationary" object, relatively, the "stationary" object will begin to appear as a cluster of stars as the accelerating object approaches c; S times bigger and Δt at c times slower.

As an object approaches 0m/s relative Universal velocity due to acceleration, the Universe's "relative" size decreases by S.

Principle 10.0

An object accelerating to **c** and/or beyond creates a wake of space-time (***ζ***) distortion classified as "magnetic" lines which would appear completely solid and tangible to a stationary observer and visibly would appear as a quantum thick string (extremely thin string). If the path of motion is circular, an object travelling at, near or beyond **c** would appear to be a closed-loop ring. Both accelerating objects would produce both transverse and longitudinal space-time fluctuation/vibration waves.

Principle 11.0

As an object approaches **c** due to acceleration, the object's relative size decreases by **S**.

$$\boldsymbol{l_q} = \frac{\boldsymbol{l_o}}{\left(\mathbf{1} + \boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)}$$

As an object accelerates away from a "stationary" object, relatively, the accelerating object will begin to appear as a quantum particle to the "stationary" object as the accelerating object approaches **c**; **S** times smaller and **c** times faster.

Principle 12.0

As an object approaches **c** due to acceleration, density of the object increases by **S**.

$$\boldsymbol{\rho_q} = \boldsymbol{\rho_o}\left(\mathbf{1} + \boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)$$

Principle 13.0

As an object approaches **c** due to acceleration, the relative mass of the object decreases by $\mathbf{S}^2$, and the mass relatively appears and is experienced as a the classically defined concept for charge as viewed from a stationary object due to the reason that the cause and effect of gravity and the cause and effect of charge are the same at two different scales in reality.

$$\boldsymbol{m_q} = \frac{\boldsymbol{m_o}}{\left(\mathbf{1} + \boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)^{\mathbf{2}}} \qquad \boldsymbol{q} \cong \frac{\boldsymbol{m_o}}{\left(\mathbf{1} + \boldsymbol{S}\left(\frac{\boldsymbol{v}}{\boldsymbol{c}}\right)^{\mathbf{3}\boldsymbol{e}}\right)^{\mathbf{2}}}\ \boldsymbol{Coulomb}$$

$$Jupiter_{quantum} = \frac{1.898x10^{27}kg}{(S)^2} = 1.56x10^{-19}kg \approx electron\,charge = 1.6x10^{-19}C$$

Principle 14.0

As an object approaches **c** due to acceleration, the relative passage of time **Δt** increases by **c** as observed from a stationary position.

$$\Delta t_q = \Delta t_o\left(1 + c_o\left(\frac{v}{c}\right)^{3e}\right) \qquad \Delta t_q = \Delta t_o\left(1 + \frac{R}{r^2}\right) \qquad \Delta t_q = \Delta t_o\left(1 + \frac{R}{\left(\frac{l_o}{\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)}\right)^2}\right)$$

$$\Delta t_q = \Delta t_o\left(1 + \frac{c_o{r_e}^2}{r^2}\right) \qquad \Delta t_q = \Delta t_o\left(1 + \frac{R}{r_1 r_2}\right)$$

$$R = c_o{r_e}^2 = 3.857x10^{-24}m^2, \quad r_e = \frac{Earth's\ Radius}{S}, \qquad c_o = 3.0x10^8$$

Principle 15.0

As an object approaches **c** due to acceleration, the relative kinetic energy level decreases by **S**^{2} as observed from a stationary position due to relative mass decrease.

$$E_k = \frac{m_o v^2}{2\left(1 + S\left(\frac{v}{c}\right)^{3e}\right)^2}$$

Principle 16.0

The Laws of Equilibrium, Energy Conservation and Momentum are constant throughout the Universe.

The Universe has a natural disposition to order things back into a natural state after experiencing disorder due to conscious, or sub-conscious and possibly intelligent interference as in the form of every cause having an effect or for every action having is an equal and opposite reaction.

Principle 17.0

As an object approaches 0m/s relative Universal velocity due to acceleration, the object's "relative" size increases by **S** as observed from a stationary position.

Principle 18.0

Light is a vibration in space-time ($\boldsymbol{\zeta}$). Thus light, sound and all physical vibrations are vibrations in space-time ($\boldsymbol{\zeta}$).

Principle 19.0

The higher the frequency and lower the amplitude of a space-time ($\boldsymbol{\zeta}$) vibration, the faster the relative vibration travels through space-time ($\boldsymbol{\zeta}$).

$$\boldsymbol{c = H\frac{f}{A} = H\frac{f}{r_{system}}}, \qquad \boldsymbol{H = 2.183x10^{-16}m^{2}}$$

Principle 20.0

Light, visible and invisible space-time ($\boldsymbol{\zeta}$) vibration, is the permeating cause and effect of gravitation and the effect of attraction and repulsion of charged objects.

Principle 21.0

Mass-gravity and charge are caused by the same effect which is the superposition of vibration between two or more objects due to distortion space-time ($\boldsymbol{\zeta}$) waves caused by the spinning of their substructure particles (atoms or sub-atomic atoms) ultimately having the objects travel along the path of least resistance to space-time ($\boldsymbol{\zeta}$) vibration.

Mass-gravity and charge is a pull or push (attraction or repulsion) between objects of matter and a pull or push from the stretching of surrounding space-time ($\boldsymbol{\zeta}$ density) caused by an object's vibration of space-time where the path of attraction or repulsion follows the path of least resistance to vibration

$$\boldsymbol{F_{gravity}} = \boldsymbol{\frac{Qm_{1}m_{2}}{d^{2}}}$$

Principle 22.0

Quantum forces are caused by the same effect as celestial forces, due to the superposition of vibration of space-time ($\boldsymbol{\zeta}$), and are stronger than celestial forces because the relative passage of time is faster at the quantum scale by a factor of $\mathbf{c}^{2}$. Thus charge force is stronger than gravity even though they are caused by the same effect.

$$F_{gravity} = \left(\left(G\left(1+\frac{R}{r_1r_2}\right)^2\left(2\left|\frac{m_2\left(\frac{r_1}{r_2}\right)^3-m_1\left(\frac{r_2}{r_1}\right)^3}{m_2\left(\frac{r_1}{r_2}\right)^3+m_1\left(\frac{r_2}{r_1}\right)^3}\right|-1\right)\right)+\left(Z\left(1+\frac{R}{r_1r_2}\right)^2 v_1v_2\right)\right)\frac{m_1m_2}{d^2}$$

Relativistic version:

$$F_{gravity} = \left(\left(G\left(1+c_o\left(\frac{v}{c}\right)^{3e}\right)^2\left(2\left|\frac{\left(\frac{m_2}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_1}{r_2}\right)^3-\left(\frac{m_1}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_2}{r_1}\right)^3}{\left(\frac{m_2}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_1}{r_2}\right)^3+\left(\frac{m_1}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{r_2}{r_1}\right)^3}\right|-1\right)\right)\right.$$

$$\left.+\left(Z\left(1+c_o\left(\frac{v}{c}\right)^{3e}\right)^2 v_1v_2\right)\right)\frac{\left(\frac{m_1}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)\left(\frac{m_2}{\left(1+S\left(\frac{v}{c}\right)^{3e}\right)^2}\right)}{d^2}$$

Principle 23.0

Distance, size and the passage of time are relative and dependent on the density of space-time (**ζ**).

Principle 24.0

Inertia is the resistance to acceleration. It is the transition from one level of space-time (**ζ**) density to another denser level of space-time (**ζ**) density due to acceleration. An object at rest or in motion in space-time (**ζ**) will remain at rest or in motion unless acted upon by an external force which space-time (**ζ**) will resist resulting in reduced mass, reduced size and increases passage of time after acceleration due to force applied.

$$F_{applied} = ma\frac{\rho_D}{\rho_o}, \qquad a = \frac{F_{applied}}{\left(m\frac{\rho_D}{\rho_o}\right)}$$

$$P = mv\frac{\rho_D}{\rho_o}, \qquad v = \frac{P}{\left(m\frac{\rho_D}{\rho_o}\right)}$$

$$F_{net} = F_{applied} - F_{inertia}$$

$$F_{net} = ma - ma\left(\frac{a}{c_a}\right), \qquad c_a = \frac{c-0}{1s}$$

$$F_{inertia} = F_{applied}\left(\frac{a}{c_a}\right), \qquad F_{inertia} = ma\left(\frac{a}{c_a}\right)$$

Principle 25.0

As an object accelerates away from a naturally positioned stationary object, relatively, both are moving away from each other, but only one is distorting space-time (**ζ**) relative to its previous velocity and the natural order of things in the Universe.

As an object moves away from a "stationary" object at a constant velocity, relatively both are moving away from each other, but neither distorts space-time (**ζ**) relative to each other since their velocity is constant.

$$D = \psi = \frac{\Delta t_{front\ or\ back}}{\Delta t_{stationary}}$$

$$D = \psi = c_o\left(1 - \left[\frac{F_{applied} - F_{cutting}}{F_{applied} + F_{cutting}}\right]\right)$$

$$D = \psi = c_o\left(1 - \left[\frac{ma - ma\left(\frac{a}{c_a}\right)}{ma + ma\left(\frac{a}{c_a}\right)}\right]\right)$$

$$m_q = \frac{m_o}{\left(1 + S\left(\frac{D}{c_o}\right)\right)^2} \qquad l_q = \frac{l_o}{\left(1 + S\left(\frac{D}{c_o}\right)\right)^2}$$

$$c_o = 3.0x10^8, \qquad c_a = 3.0x10^8 m/s^2$$

Principle 26.0

An object in acceleration distorts space-time (**ζ**) forming denser space-time in front of the object and lower space-time (**ζ**) density behind the object.

$$l_b = l_o\left(\frac{\rho_{\zeta\ distorted}}{\rho_{\zeta\ natural}}\right) \qquad \Delta t_b = \Delta t_o\left(\frac{\rho_{\zeta\ distorted}}{\rho_{\zeta\ natural}}\right) \qquad \mathrm{E}_b = \mathrm{E}_o\left(\frac{\rho_{\zeta\ distorted}}{\rho_{\zeta\ natural}}\right)$$

Principle 27.0

The movement of atomic and quantum particles distort space-time (ζ) much more than the movement of a celestial object at relative acceleration because the density of space-time (ζ) of quantum particles is far greater than celestial space-time (ζ) density.

$$D = \psi = \phi_{DC}\frac{IV}{R} \qquad D = \psi = \phi_{DCPulse}\frac{IVf_{DCPulse}}{R} \qquad D = \psi = \phi_{AC}\frac{IV}{R} \qquad D = \psi = \phi_{q}V$$

Principle 28.0

Symmetric distortion of space-time (ζ), via vibration or moving of objects of matter, with phases of acceleration and deceleration changes the relative density of space-time (ζ) of which many applications can be derived.

Principle 29.0

Distortion is not instantaneous. It indirectly is subject to the *Universal* ζ *Rate of Permeation*.

Principle 30.0

Matter is self defining. Matter travelling at c forms the relative quantum substance that forms the matter of the next reality interval separated by scale difference S and Δt at the value of c.

Principle 31.0

Two different space-time (ζ) densities repel each other which is an effect attributed to the concept of buoyancy.

$$m_{distorted} = m_{natural}\left(\frac{\rho_{\zeta\,distorted}}{\rho_{\zeta\,natural}}\right)$$

Principle 32.0

Two space-time (ζ) vibrations of the same frequency and amplitude nullify each other (Total Destructive Interference) causing repulsion between the vibration sources which is another effect attributed to the concept of buoyancy, charge and gravitational repulsion.

Principle 33.0

Two space-time (ζ) vibrations of the significant different frequencies and amplitudes superposition with each other, causing attraction between the vibration sources, which is the effect attributed to the concept of gravity.

Principle 34.0

Rotating objects of matter shear space-time (ζ) between them and stretch it causing the objects to attract each other. If one of two objects is spinning, the shearing effect causes the non-spinning object to move away. If both objects are spinning and are equal size and density, then total destructive interference of their substructure (quantum) vibration of space-time (ζ) between both objects would repel the objects away from one another, but the spinning shear effect (stretching) on space-time (ζ) would cause both objects to attract and the balance between repulsion and attraction is a gravitational space-time bond akin to a molecular bond.

Principle 35.0

All matter vibrates space-time (ζ) in all perpetual scale-frequency ranges which accumulatively superposition until reaching the matter's surface resulting in the generation of a unique density of space-time (ζ) due to the object's size and "relative" density. This is also the cause why planetoids spin due to the generated vibrations pushing against nominal space-time (ζ) density in the surrounding space causing the planetoids to spin. Hence why time passes faster on Earth than on Jupiter, because Earth emits a denser space-time (ζ) density compared to Jupiter because Jupiter is vibrating space-time (ζ) at larger amplitudes at its surface.

$$f = \frac{3\mu\rho N}{4\pi r^3} \qquad A = \frac{4\pi r^3}{3\mu\rho N}$$

Principle 36.0

Visible and invisible light, space-time (ζ) vibration, is caused by an objects substructure/quantum (smaller, accelerated reality) particle systems spinning and distorting space-time (ζ) which ripples outward where at certain frequencies and amplitudes (radius of the substructure system) manifests itself as light as perceived by us.

Principle 37.0

All matter emits space-time (ζ) vibration *unique* to itself which can be classified as light and is perceived relatively by the observer, such as the Sun appearing to be burning and emitting heat and visible/invisible light as observed by humans but an alien might perceive Earth to have relatively similar characteristics to how humans see the Sun. The same relative perception is also applied to black holes.

Principle 38.0

Celestial and quantum realities are relative equivalents separated by S and the passage of time, Δt at c, where all natural orbital systems are composed of a large spherical core object, which expel the most space-time vibration (ζ) due to its size and perceived mass-density, and is surrounded by two orbiting shells of spherical objects (inner and outer orbital shells) with each orbiting shell containing same number of spherical objects with respect to one another and where the inner orbital shell is composed of smaller objects with respect to the much larger sized objects in the outer orbital shell. Collectively, all spherical objects progressively reduce the space-time vibration of the core spherical object by orbiting the core object, which is also caused by the core object's rotation due to its emitted space-time vibration, effectively making the entire system neutral with regards to forces derived from space-time vibrations.

Principle 39.0

Neutrality is the natural reduction space-time (ζ) vibration (decreasing amplitude) by objects of gradually decreasing size orbiting around a system's core. Removing or adding orbiting objects to any system decreases the Neutrality of the system resulting in excess leakage vibration from the core objects. Naturally neutral systems are any system of matter, but relative to each other. No system is 100% neutral. Neutrality is manifested through the concepts of mass and density, thus very heavy and dense matter is more neutral than that of less heavier and dense matter.

Principle 40.0

The higher the relative kinetic energy of an object, the denser the relative space-time (ζ) that surrounds the object as observed from a stationary observer with low kinetic energy.

Principle 41.0

Energy is the potential difference in between two or more realities, space-time ($\boldsymbol{\zeta}$) densities, where the difference can range up to the scale difference of $\mathbf{S}$ and passage of time ($\mathbf{\Delta t}$) equal to the value of $\mathbf{c}$ and multiple increments of this difference.

$$\mathbf{E} = \frac{\mathbf{m}_o c^2}{2} \sum_{q=0}^{\infty} \left[1 + \frac{R l^2 S^2}{r_o^2} \right]^2$$

$$where\ l = reality\ scale\ level$$

The source of all Energy, the source of all space-time vibration, is infinitely perpetuating in infinite decrements of $\mathbf{S}$ and infinite increments $\mathbf{\Delta t}$ equal to the value of $\mathbf{c}$. Thus Energy is infinite in every particle at any scale.

Principle 42.0

Physical consciousness, at any level, cannot exist without the space-time ($\boldsymbol{\zeta}$) for it to exist in forming reality as observed and created by consciousness, thus in actuality consciousness is the third part to our existence next to space and time. The fabric of our Universe is therefore space-time-consciousness where there is only one such collective medium, thus the one whole Universe (at infinite levels of **S** and **Δt** equal to the value of **c**) and, due to there being consciousness, logically dictates that it is alive. The logic is as follows:

Reality is perceived, created and transcended by consciousness where a conscious observer exists in space-time in order for this to be true, thus consciousness is an integral part of existence along with space-time.

∴ Existence is space-time-consciousness

Just as space and time can have infinite magnitudes (levels), consciousness can also have infinite magnitudes in relation to perception, clarity, awareness, knowledge, enlightenment and since consciousness is an integral-part of existence as is space-time, it also dictates that in order to be conscious (at any level) that existence itself must be alive.

∴ Existence is alive

Since existence is composed of everything at all magnitudes of reality, it is the largest living entity in relation only to itself (Existence) and since it gives birth and nurtures everything inside it, it is directly the creator of everything.

∴ *Existence is God*

The principle that states consciousness creates reality, by perception, thought and from imagination to tangibility, implies that all conscious observers live and exist, thus all conscious entities are a part of Existence and are themselves god-like.

This book is an initial attempt at aggregating a collection of theories derived by this book's author over the course of a decade through numerous thought experiments surrounding the notion of relative realities into a clear list of interrelated Universal principles. This collective theory is a possible candidate for a true theory of everything physical. The accumulative drive of these theories and principles pushes a very real underlining revision on the perception of everything and is a must read for anyone truly interested in understanding our Existence.

Throughout this book, you will be introduced to many new concepts, all with the same common underlining link, such as:

- defining realities and relative realities
- defining a new concept of dimension
- defining the true effect of gravity and charge
- redefining Newton's Gravitational formula and introducing the Q transform
- defining Space-Time Density and its New Universal Law
- show a new perspective on most known physics
- defining charge and neutrality
- detailing the relation between Quantum and Celestial realms
- defining Space-Time Buoyancy (anti-gravity)
- detailing Space-Time Buoyancy (anti-gravity) applications
- defining the formulation of Space-Time Distortion
- detailing the link between Electricity and Distortion
- defining Electro-Distortion equations
- redefining Light and Electromagnetic Waves
- detail that the Speed of Light (c) is not constant or a limit
- detailing Faster Than Light speed applications including Quantum Radio
- redefining Einstein's Relativity equations
- redefining Einstein's Energy equation
- attempt to explain zero and its relation to dimension and realities
- detailing the true effect behind elementary and molecular bonds
- touch on entropy, aging and its link to Earth
- touch on evolution
- explain Existence

About the author
Robert DeMelo is a Physics Philosopher. He has worked in technology as a consultant, systems and software engineer for over 10 years. His educational background is in engineering and his interests of study include physics and ancient/prehistoric history.

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